



May- June 2004

Issue 5 & 6

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CHAIRMAN'S MESSAGE**By Ralph Ridge**

First let me thank the membership for the vote of confidence in re-electing me as your Chairman for 2005-06. I think we've accomplished a lot in the past several years and I hope to build on those accomplishments that you, the membership, have been instrumental in putting into place. I am also looking forward to working with the new board next year.

Next I want to congratulate Kevin Bell for the fine job he has done as our Chapter Liaison officer in charge of overseeing our efforts to become a Top Flight chapter. As of now, we have accomplished all of the necessary criteria to earn that award for this year. Kevin is already looking forward to next year's events for a repeat effort.

Also included in this newsletter are the minutes from the NCRS National Board meeting in March that our Regional Director, Howard Loomis, attended. As you read them, you'll notice that several important decisions were made that affect all chapters, especially the rearranging of the regions.

Last, but not least, let me remind everyone of the fact that our RMC and New Mexico sponsored Breckenridge Regional meet is fast approaching. Your committees have been busy putting the finishing touches on the final plans. If you haven't signed-up for the meet or a job at the meet, consider doing it NOW! This is going to be a great event and it will certainly be more fun as an active participant. To get involved call Eckhard Pobuda at 719-488-1767, or contact myself or Dennis Kazmierzak.

SAVE THE WAVE, Ralph

MEMBERSHIP**By Jon Whiteley**

The Rocky Mountain Chapter of NCRS membership currently stands at 100 members – 13 of these are new for 2004. This year is off to another great start!

Since our last newsletter, we've had several new members (and some nice cars) join our ranks. Please welcome:

- Sig & Diane Patzer of Westminster – '65 blue/blue 327 FI convertible

- Charles & Jean Cadenhead of Spring, TX – '64 red/white 327/300 convertible *and* '68 bronze/dk. orange 427/435 L-89 (alum. heads) convertible
- Jim & Janet Montgomery of Boulder – no car listed
- Brian & Diane Lynch of Lone Tree – '70 grey/black LT-1 coupe
- Bob & Chris O'Brien of Lone Tree – no car listed
- Cliff & Margie Florentin of Denver – '65 blue/white-blue 396/425 convertible

See you soon. Until then, get out and drive those Vettes!

JUDGING

By Bill Lucia

This time around my judging chair report centers on our recent chapter meet. Additionally, I'll tell you about a few new manuals that we received from the national organization as well as put in a plug for our own regional and one or two other events that are on tap. I'll also provide some information on a new program developed by Roy Sinor to address judging quality and knowledge of judges.

First the chapter meet. If you missed this one you missed one of the bigger meets in recent memory. We had 16 cars participate in the flight judging program as well as 9 sportsman entries. Just after the lunch break I took an informal survey (count) of the cars in attendance. We had 34 Corvettes just after noon on Sunday!!!!!! The judging went smoothly and probably most importantly, every owner that campaigned a car earned a flight award. This is a significant fact since any earned flight award is just one of the prerequisites for the Founders Award. Additionally, with a regional meet within easy driving distance (Breckenridge in June) and a national only a bit farther away in 2005, all 16 of the participants have an excellent shot at the Founders award. Several of the participants

are going to work toward an additional award and at least two are starting to fill out a second plaque!!!!

There are several new manuals now on hand. About three weeks ago I received the newest versions of the 1965 and 1966 judging guides. The first edition of the long awaited 1987-1989 manual arrived along with a new PV book for the 1984-1986 cars. This rounds out our technical library with a full set of the most up to date manuals as provided by national. I'll let the membership know as we receive the new updated manuals. You will need to update your own library for the cars you own or for those in which you have an interest. Check your most recent Drive Line for prices, availability and ordering and shipping.

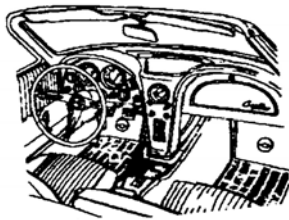
As I mentioned at the outset, the Breckenridge meet is close at hand. We have a little over one month to get ready and the last update from Kevin Bell indicated 11 cars for flight judging. If you participated in the chapter meet you should strongly consider this meet as well. It's the next logical step in the hierarchy of meets and you will definitely see a difference in the quality, pace and decorum of this meet.

There are a number of other chapter and regional meets still to come as it is early in the year. Plan on attending one or more of them. You'll be glad that you did. One of my favorites is the Northwest Chapter Regional meet. This has become an almost perennial meet and the venues over the last several years have been fantastic. Last year the meet took place in Welches, Oregon at the Inn at The Mountain. This year, 2004, the meet will be held in Seaside on the Oregon coast. The judging venue will be in-doors at the convention center in the downtown area. This is about two short blocks from the beach. Plan on making reservations as soon as possible if you plan to attend because this meet is the weekend before Labor Day.

One last note for this report. Roy Sinor has nominated a number of members to participate as Regional Judging Quality Control officers. I

have accepted this position on behalf of our region. Duties will include working with Roy and the other regional representatives to improve the quality of judging and judging skills and to provide consistency in the overall-judging program. This program is a direct result of the tireless efforts of the late John Woods who developed some of the finest training and presentation materials for our judging program. I'll be passing on information regarding this program as it moves forward. One major event to be held in February of 2005 will be the two-day judging school. Open to judging participants with 50 or fewer points this school will be an intensive two-day event presented by master level judges. Participants can earn 30 points for attending the event. I will pass on details as I get them. That's it for this report.....see you at the Regional meet!!!!!!!!!!!!!!

Best Regards
Bill Lucia, Chapter Judging Chairman



ACTIVITIES

BY DAVE TALLEY

Here's an update of the activities I know of. As always, if you know of a Vette related activity others might enjoy, please let me know so it can be included in the newsletter. Thanks.

May – Meeting on the 15th at Corvette City. Tech session—any volunteers?

June – Regular meeting on the 19th overridden by Regional 3-6.

July – Ekhard will again host a picnic on July 4th. Meeting on the 17th. National Convention in Windsor, Ontario, Canada 25-29. Vettes on the Rockies July 29 – August 1. Summer road tour.

August – Super Chevy Show 13-15 at Bandimere Speedway. Meeting on the 21st. Judging school.

September – Meeting on the 18th. Fall colors road tour.

October – Meeting on the 16th. Tech session. Possible Dyno run.

November – Meeting on the 20th. Tech session.

– Christmas party. 4th??? Think about the possibility of hosting.

Dave. 303-660-2220 email:dnt3@Comcast.net

Vice Chairman

BY DENNIS KAZMIERZAK

From the VP's Desk

This past quarter has been busy to say the least. In January we open nominations for the changing board officers, asked for volunteers for the regional and 9News HealthFair, encouraged members to register for the Chapter Meet in March & the Regional in June and the Bozarth Dealer appreciation day in Arial.

Nominations led to a ballot with Pete Gregory and Mike Bird [Membership Chairman position], Rick Reiff (incumbent) [Secretary's position], Mark Warren [Newsletter Editor], and Gary Steffens (incumbent) [Tech Advisor]. Pete, Rick, Mark & Gary were elected by ballot count at the April Annual Meeting. Pete and Mark are new to the board, which is good for our Chapters health and growth of new ideas. Congratulations to these men in stepping forward to the positions. Additionally Kevin Bell has accepted a position of Assistant Newsletter Editor to help Mark Warren. This new position

will run concurrently with Marks 2 year period. The Board thanks Kevin for volunteering for this position as it will help Mark in the transition from Joyce Bell and add some help with the task. Since they both live in the Colorado Springs area they'll see a benefit of short distance along with electronic communication to make this job somewhat less difficult. The new officers will take their responsibility in January 2005.

April also brought on our first opportunity to assist in the 9News HealthFair. Kevin Bell, Ralph Ridge, Jerry Gollnick, Sig Patzer, Mike Bird and I were on 9News morning news cast at 6:00AM April 24th to handle the phone bank for volunteers. We were there at 5:15AM. This meant Kevin, Jerry, Sig and Ralph had to be up before 4:00AM to be downtown. I want to thank the gentlemen for helping with this event. I hope several of you took the time to go to the Health Fair during the week of April 17-25th.

I have also been active in the regional meetings and coordinating the communication with the New Mexico Chapter. Dan Pyzel has made two trips up to these meetings or to Breckenridge to focus on their Chapters responsibility of the judging for this meet. Dan reported at the last meeting they had received a \$1000.00 donation for their major sponsor in Albuquerque. This will help with the expenses were incur and share the load between our Chapters.

We also have a new contact at Ed Bozarth Chevrolet. Mark Wells (303) 751-7500 is who we are to contact for and request for meetings or activities. He'll also take your order request for a new C6. Ralph & I will continue to handle the commutations with Mark regarding the Chapters activities.

That's it from my desk. Get your Vettes out of the garage and on the road. The snows melted and the roads are clear. I look forward to seeing you at the coming events. Don't forget we get points for driving our Vettes to these activities and meetings.

ARTICLES and Miscellany

SOLID AXLE TECH TIP

By John Marsico

This past winter found me busy getting my '62 ready for the Chapter Meet, and eventually the Breckenridge Regional. While working around the left front wheel, I noticed my windshield washer vacuum canister was not securely attached to the inner fender. After removing the canister to determine the problem, I discovered the canister had been attached with machine screws placed through holes at the feet of the mounting bracket. I just didn't believe the "General" would have done it this way in 1962.

I contacted Dave Heitzman, National team Leader for 1961 – 1962, and asked his opinion regarding what was correct.

Dave not only explained the correct construction and installation of the canister, but he gave me a tip that I thought was worth passing on to our chapter members who might have the same problem.

The vacuum canister was originally manufactured with #10 integral mounting bolts with a round flat head at the feet of the bracket. If your canister does not have the mounting bolts attached, Dave provides the best solution.

The fix for this problem is to visit your local hardware store and purchase 2 #10 carriage bolts, 2 flat washers, 2 split lock washers, and 2 nuts. In your garage, file the heads of the carriage bolts flat. Once inserted into the holes in the feet of the bracket, put a small dab of clear silicone glue to keep the bolts steady when you re-install the canister to the inner fender. Be sure to paint the carriage bolts a low quality gloss black since the entire canister including the valve was painted in this way.

Upon installation, once the canister is resting on the inner fender, secure it with the flat washers, split lock washers, and nuts on the outside of the inner fender. Remember, the flat washers, split lock washers, and nuts are cad plated.

I hope this suggestion helps.

John Marsico
#17709

Chassis Dynos and Your Car By Jon Whiteley

The RMC has held a "Dyno Day" the past two years for those members desiring to see what their car "will do". The dyno facility used in 2002 was different than the one we used in 2003. While some cars' torque and horsepower numbers seemed about right, there were other cars that posted readings (both high and low) that raised eyebrows and questions.

The May 2004 issue of **HOTROD** magazine has an informative article on how chassis dynos work, how different types compare and what you need to know when you get your car tested. It's worthwhile reading if you have or are planning to have your vehicle tested on a dyno. (This article is unfortunately not on the hotrod.com website, so you'll need to pick it up at your newsstand.)

While there are differences in how a car will test on different types of dynos and on different brands of dynos of the same type, comparing results between two dynos of the *same type and brand* should give very similar readings **IF** the dynos and the dyno operators are properly calibrated. Beyond the accuracy of the actual dyno itself, there are a number of variable *outside* the measurement system that can influence what the car is going to do on the dyno. These include but are not limited to the following:

- Tire characteristics such as coefficient of friction and diameter
- Is car exhaust routed to the OUTSIDE of the testing area? (non-recirculation)
- Transmission type (manual vs. auto)
- How loose is the torque converter?
- Rear axle ratio
- Transmission gear ratio that testing is done in (if other than 1:1)
- Atmospheric conditions (many dynos automatically calculate and correct for this)
- Tie down of rear of car (especially on very high horsepower cars)
- Dyno operator experience and consistency

As you can see, there are many factors that can affect how a particular car "tests" on a particular dyno. The bottom line - [you] should realize that the results of chassis-dyno testing should not be used to compare one car against another; they are best suited for evaluating the effects of incremental changes on the same vehicle. In other words, dynos are for tuning, racetracks are for racing."

RMC is planning another Dyno Day in October 2004 if there is once again sufficient interest. (Remember, it doesn't have to be a Corvette). I'd like to make this one the best yet! Any feedback or recommendations you may have about previous events or for this year's Dyno Day are welcome and encouraged. You can contact me jonLwhiteley@msn.com or talk to me at an upcoming meeting - but please don't wait until the last minute! Thanks.

Checking the C2 Frame By Dennis Kazmierzak

A fellow member of our local chapter bought his favorite C2 Corvette without having the car checked over prior to its purchase. After the Corvette was delivered he found rust on the frame to the extent the frame would need major repairs before it would be safe to drive.

What do you look for on the frame to determine if you have a major problem or

simply some cosmetic blemishes? First of all you should get the car on a lift to check for signs of damage, rusty surfaces and rust holes. Usually a rusty surface is not a problem as long as it's surface rust. Surface rust can be easily removed with a Scotch-Brite pad or brass wire brush. Heavy rust will require a steel wire brush and will then leave a pock surface and require more cosmetic repair. A severely rusted surface could break through into a hole with big problems to correct.

Areas to check are from the No. 2 frame cross member back. This would be at the rear of the transmission. The gussets at the No. 3 cross member, where the seat belt anchors attach and behind this cross member are collection areas for dirt and road salt etc. At the No. 3 cross member attaches the frame kick-up rail. The pocket where the trailing arm attaches to the kick-up is another collection area for dirt and road salt. If the drain holes become clogged rust will begin to corrode the steel in these areas. It will be obvious if the cap in the end of the frame rail at the No. 3 cross member has holes in it or is easily damaged when poked with a screwdriver.

The No. 4 cross member is where the differential attaches to the frame. The surface area on top of this cross member has the access holes for mounting the differential. This is another collection area for dirt and debris. You can feel the top of this cross member for surface condition but it's difficult to see. This cross member has a thick steel "U" shaped lower segment with a thin steel cover welded to it. The upper surface will rust through or become heavily pocked where the lower section will not show as much deterioration.

The last area to the rear of the car is the gas tank mounting and the tank itself. Again you are looking for signs of rust and damage do to rust. The last cross member is where the bumper mounts to the frame. If this rail is rusted to a thin knife-edge be aware of bigger problems up front.

I started at the middle of the car for this inspection but rust can be found up front also. Check the "A" frames and the first cross member where the "A" frames attach. If you see rust in these areas you know you'll see it all the way back.

In my estimation anything can be fixed. It just takes money to fix it. If you are unfortunate to have a rusty frame get the situation analyzed and determine what course of repair you should take to correct the problem. You can buy a complete frame and or any part of the frame. Make sure you have a competent experienced technician assist you with the job. To repair the frame you would spend any where from \$3500-\$11,000. You are not just replacing the frame but everything that attaches to it.

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Hot Corvette?

By Jack Humphrey

A frequent restoration complaint is a freshly rebuilt Corvette running hot. This has been a frequent topic on the NCRS Technical Discussion Board. Typically, the owner asserts the car is running 'hot' because the temp gauge says so. That's not always true!

Just because the temp gauge reads a given temperature, doesn't mean that's what the actual coolant temp is. The reality is, you only see a gauge needle pointing to a given position of the dial.

I've seen owners spend a LOT of time and money chasing their tails (new/rebuilt fan clutch, new/rebuilt water pump, fresh thermostat, new/rebuilt radiator, Etc.) where efforts frequently turn out to be a waste of time. Those with experience START by assessing the accuracy of the car's temperature

reporting system—like getting a second opinion from the doctor when he diagnoses this/that and recommends major surgery.

The System

The electrical temperature system of 1956 and later Corvettes consists of: (1) a temp gauge, (2) a sending unit (mounted in either the intake manifold or the cylinder head), and (3) interconnect wiring. Earlier Corvettes used a mechanical temperature gauge. Most passenger cars from this era used 'idiot' lights. The electrical temperature system isn't known for high accuracy. That's why the temp gauge face has few markings for specific temperatures. But, when all is calibrated properly, the electrical system does a reasonable job.

The gauge is basically an ammeter that measures current flowing through the temp sender. In the dash there are three wiring connections to the gauge: (1) power input from the ignition switch, (2) ground reference, and (3) the sender lead. NOTE: if the gauge lacks a good ground at the instrument cluster, all kinds of 'funny' things can happen including erratic pointer needle movement! Also, since the cars' battery voltage varies (is the generator/alternator charging the battery?), it's important to take readings under 'normal' driving conditions vs. ignition-on/engine not running or ignition-on/engine running/charging system inactive.

The temp sender is a variable resistor whose resistance changes with temperature. The sender profile is NOT a straight line! The gauge compensates for this irregularity by its design.

Getting A Second Opinion

Before you conclude your car's temperature reporting system is accurate, test it! Using an infrared thermometer (point and shoot) or a simple mechanical thermometer is a big help. With an IR thermometer, point it at the thermostat cover (where the upper radiator

hose connects) or the bottom side of the upper radiator hose. This will give you a reading that's pretty close to the actual coolant exit temperature.

If you don't have a fancy IR thermometer, you can come close using an ordinary oven meat thermometer. Mount it against the bottom side of the upper radiator hose and wrap it in place with something like duct tape. Be SURE to position the thermometer AWAY from the fan blade!

Compare the temperature you measure externally against cockpit gauge readings. If the discrepancy is significant, it's time to doubt the car's temperature reporting system and look for problem(s).

Temp Sender Problems

Temp senders have a Temperature vs. Resistance profile. The TR response of an original AC 1513321, 12V, sender used from 1957-1967 is shown in Figure 1. The '56 and early Shark temp senders have nearly identical profiles. Replacement senders are frequently 'close' to the factory original formula, but not 'on-the-money'....

Some assess the accuracy of a given sender by removing it, connecting an ohmmeter across it and immersing it in a pan of hot water on the stove. Be careful here! It takes a while for the temp sender to reach a steady state temperature.

Catalog houses are now offering 'correct' reproductions of the original AC temp senders. How close they really are in both appearance and function, I can't say. Several on the NCRS Technical Discussion Board have recommended using a Wells TU5 temp sender (aftermarket item available at most auto parts stores). They report it to be electrically faithful to the original AC sender profile.

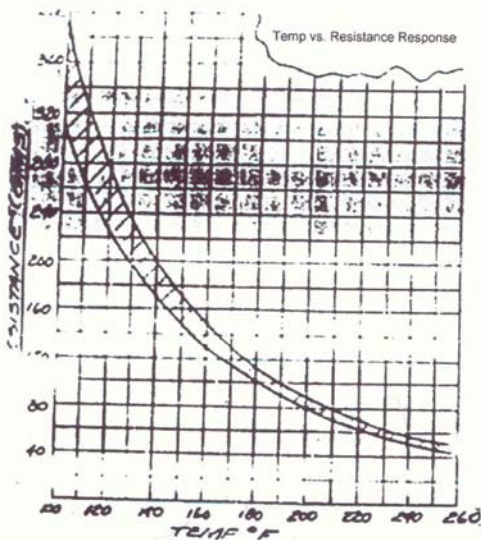
Gauge Problems

Early temp gauges were calibrated by inserting them into a factory fixture designed to mimic engine overheat conditions. The calibration operator carefully installed the pointer needle aligning it to the appropriate high temp mark on a given gauge.

Later gauges were fully assembled then calibrated. These had additional terminals to accept a calibration resistor. The calibration operator installed the gauge in a similar fixture, and picked from a selection of precision, wire wound, resistors to 'trim' the gauge's pointer position to a specified high temp position of the gauge.

If a temp gauge has been handled by prior owners/mechanics or sent out for restoration, who knows what its current accuracy is? If the pointer needle was removed (re-silkscreen the gauge face), factory original calibration was lost. Did the restorer know how to properly regain accuracy? Fortunately, there's an EASY way to tell!

We use Figure 1 (below) and work backwards. Disconnect the wire from the temp sender in the engine compartment. Connect a fixed resistor (1W rating) between the temp sender lead and ground. Resistors come in standard value increments. Here are three standard values to exercise the dynamic range of your gauge:



- (1) 390 ohms: expect a gauge reading of 100F.
- (2) 120 ohms: should peg the gauge at 180F.
- (3) 68 ohms: anticipate a reading of 240F.

Remember, you have to do this test with the generator/alternator working, charging the battery. The temp system is measuring current flow to the sender and current will vary with actual battery voltage. Under steady-state conditions (fully charged battery, alternator/generator doing minimal work to maintain charge), battery voltage will hover around 14 VDC. Most automotive laboratory bench power supplies generate a fixed output of 13.8 VDC to emulate a car's working conditions. They do NOT provide 12 VDC, that's routinely used for computer and audio system work.

Once you've validated the accuracy of your temp gauge and your temp sender, it's safe to trust the temperatures you see reported in the cockpit. But, until you take this precaution you just might be fighting windmills!

SLEEVING ENGINE BLOCKS

By Gary Steffens

How many times I have heard, "Oh, it has a sleeve, I don't think I'm interested." Having raced since 1962, run a machine shop, and built more Corvette engines than I can remember, I chuckle when I hear that comment.

There is absolutely nothing wrong with a sleeved block. Having said that, I'll follow with, the work needs to be done by a competent machinist. Don't shop for the cheapest machine shop—look for the shop with a quality engine reputation.

An engine shop specializing in building competition race engines will be your best bet. If they have been in business for a long time, they probably know what they are doing. Talk to both restorers and racers for recommendations.

The typical cylinder sleeve is made of a material that is stronger than a cast cylinder wall. It is consistent in wall thickness, unlike a cylinder wall. If installed correctly it will outlast the rest of your bores!

Proper installation of a sleeve is critical! Done properly there should be a step or lip left at the bottom of the cylinder wall for the sleeve to butt up against. Don't let your machine shop bore completely through the bottom of the cylinder and press the sleeve completely through the bottom of the cylinder bore. There is always a possibility the sleeve will work loose and either, turn in the bore or drop down in the bore allowing the crank or rods to strike the sleeve. Sleeved engines built this way often wind up as scrap iron!

So your Corvette block has a rather large "picture window" in the cylinder wall (crack), is it savable? Racing big blocks for years I've repaired many a block with a hole big enough to put your fist through. As long as the block is not cracked further than the sleeve extends, no problem!

Most of the time when installing thick wall sleeves, the boring bar will open up it's own "picture window" if the block walls have any core shift. Did I mention "thick wall sleeves?" Yes, there are thin wall and thick wall sleeves.

Thick wall sleeves are usually for repairing catastrophic damage. Thin wall sleeves are used to repair a block with a simple crack or perhaps the two cylinders in small block that typically wear more than the other 6 cylinders.

How about building an engine with multiple sleeves? Typically when a rod lets go it takes out its own cylinder and the one on the opposite bank. This is NOT a problem!

Sleeving more than one bore is not uncommon. But, if you are thinking of doing all 8 cylinders, it might be cheaper to go find another block. Figure a competent sleeve job will run \$125-175 per hole....

But, when you are trying to save an original, matching numbers, block, or your particular engine is rare making a replacement block cost thousands of dollars, you have no choice. Just be sure your machinist checks the crank's main bores as well as the cam bores when he's done the sleeve job. Enough twisting of the block occurs when all 8 bores are sleeved that every dimension on the block needs to be checked and corrected as needed.

Most machinists use either red Loctite or liquid brown Permatex to seal the sleeve and prevent coolant seepage. If he's good he'll use what he has the best experience with.

A sleeve should always be installed before the adjoining cylinders are bored and finish honed. Enough distortion can occur in adjoining cylinders to create problems with ring seal and piston clearances.

So, your machinist installed a sleeve or two in your block and now he wants to 'deck' the block to get the top of the sleeve flush with the block's cylinder head surface. There goes my factory original numbers on the stamp pad, right?

Not necessarily! If he was careful in getting the block squared properly on the boring fixture, he should be able to trim off any sleeve excess using a boring bar cutting tool and get flush with the deck. Then, if he really likes you, he'll use his boring bar cutter to leave a nice chamfer at the top of the cylinder to aid in piston ring installation.

Of course, after sleeves are installed, the machinist then bores the rest of the cylinders, hones the cylinders with a torque plate installed to leave the cylinders nice and round for ring seal. Finally, he should jet wash the block to remove all that honing oil and bore shavings from the block, install cam bearings, core plugs and oil galley plugs and bag the finished block to keep it nice and clean for you. I never assume a block is clean enough!

I always use a can or two of brake and parts cleaner spray to clean the cylinder walls even more before assembly!

Gary Steffens
Member # 21273

Regional Director

BY Howard Loomis

Summaries taken from the Board meeting.

Gilbert Scrivner was elected President of the Board and Jeff Cook was elected Financial Officer. Gilbert appointed Vito Cimilluca as Vice-President and National Activities Chairman, Cece Nelson as Secretary, Jeff Cook as Business Manager, Roy Sinor as Judging Chairman, Gary Mortimer as Merchandising and Membership Manager, John Pirkle as National Corvette Museum Representative and Carlton Colclough as Public Relations. Terry McManmon was re-confirmed as editor of *The Corvette Restorer* and Eric Mortimer was re-confirmed as editor of *The NCRS Driveline*.

The Regionals for 2006 will be held at the following sites: Kissimmee, FL, January 19-22; Flagstaff, AZ, April 27-29; Auburn, IN May 18-20; St. Louis, MO June 8-10; Vancouver, WA August 17-19; Boston-Marlborough, MA September 14-16; Waco, TX, November 2-4.

Two outstanding proposals were presented for holding the 2007 National Convention, Myrtle Beach, SC and Boston-Marlborough, MA. The board voted and selected Boston-Marlborough, MA. The New England Chapter and Adirondack Chapter will be the hosting chapters. Dave Brigham was elected to be the National Convention Chairperson.

Gary Mortimer reported NCRS sales are ahead of last year. Eric Mortimer stated we had 15,590 families as active members.

Carlton Colclough reported NCRS gave a total of \$43,238 to charities during 2003 with \$12,798 given by the chapters and \$30,400 given by national. National will continue to match the chapter contributions in 2004 so long as the contributions meet the Charity Program Guidelines.

John Pirkle reported the National Corvette Museum elected the five founding fathers of the museum into the Museum Hall of Fame. They are Ray Battaglini, Darrel Bowlin, Tom Brookmyer, Dan Gale and Terry McManmon. These five founding fathers were all NCRS members and will be inducted at the Labor Day Celebration. Congratulations!

The NCRS By-laws were changed to reflect the Regional Representative boundaries. These boundaries were changed so the Regional Directors could more easily serve the regions in which they represent rather than be based on a regional membership balance. Changes to the nine geographic regions are as follows:

- Region I – no change
- Region II – no change
- Region III – no change
- Region IV – no change
- Region V – North Dakota, South Dakota, Minnesota, Iowa, Wisconsin, Illinois, Indiana and Manitoba
- Region VI – Utah, Wyoming, Colorado, New Mexico and Nebraska
- Region VII – Kansas, Oklahoma, Texas, Missouri, Arkansas and Louisiana
- Region VIII – Washington, Oregon, Idaho, Montana, Alaska, British Columbia, Alberta and Saskatchewan
- Region IX – California, Hawaii, Arizona and Nevada

The Board established a NCRS President's Club to honor the individuals who have served our organization as President. The NCRS President's Club will have no specific responsibilities and will have no decision-making authority. The NCRS Board of Directors and officers may use it as a resource. Each member of the President's Club will be award a Life Member of NCRS and a special pin to honor

their long time dedication and service to the organization.

Tom Hincz will head up the "Year of the 1954" at our National Convention in Windsor that was mentioned in the winter issue of The Corvette Restorer. 1954 car owners that either display or have their 50-year-old car judged at the National Convention will be awarded a plaque signifying the anniversary. In addition, they will be highlighted in the road tour parade as it arrives at the National Convention. The registration form is in the latest issue of The Driveline and all of you 1954 owners should make every effort to attend.

Duane Ravenberg has done an excellent job in preparing a new National Convention Guideline for NCRS to use as we prepare for a National Convention. The Board approved these guidelines.

Other items labeled for later action were the development of NCRS Scholarships, Regional Director global boundaries, Chapter Guidelines, Registration Guidelines Revision, Chapter Flight Award Revision, President Award/Member of Year Award Guidelines.

The next Board meeting will be held in Windsor, Canada on Friday, July 30, 2004 following the National Convention.

EDITOR NOTES

By Joyce Bell

Please keep Gary Steffens and his family in your thoughts and prayers as they mourn the loss of Gary's dad, who died on May 4th. Ralph has sent flowers to the family on behalf of the Chapter.

At our meeting in January, it was decided that those people who submit articles this year would be eligible for a drawing in December. The prize is a beautiful black RMNCRS jacket with embroidered logo. Those who have qualified thus far are; Gary Steffens, John Marsico, Jack Humphrey, Jim Lennartz, Dennis Kazmierzak, Jon Whiteley, Jay Reinig, Fred

Koenig, Rick Rieff, and Ralph Ridge if I've missed anyone please let me know. The newsletter deadline is the 15th day of the following months: Feb, Apr, Jun, Aug, Oct. You may email or mail your articles.

Thanks,
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MERCHANDISE

By Eckhard Pobuda

MERCHANDISE - IN STOCK

ITEM	PRICE
Golf Caps...Red, White, Gray, Maroon, Natural/Green, and Natural/Blue	\$11.00
T- Shirts...Silk screen Front & Back	\$10.00
Sweatshirts...Silk screen Front & Back	\$20.00
Short Sleeved Polo...White, Red, Blue & Gray (RMC Embroidered)	\$30.00
Long Sleeved Polo...Dark Gray & Blue (RMC Embroidered)	\$35.00
Light Weight Polo...Short Sleeved (Teal)	\$20.00
Shop Coats...Gray (RMC Embroidered)	\$35.00
Chambray Shirt (RMC Embroidered)	\$30.00
RMC Embroidered Jacket (special order)	\$50.00
Steamboat Hat Pins	\$1.00
RMC Hat Pins	\$3.00
Name Tags	\$5.00

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CLASSIFIED ADS

For Sale:

Solid Axle Parts For Sale: 2-1958 small hub caps (Dog Dish) good condition: \$75. 4- 1959 small hub caps (Dog Dish) 2 good, 1 very good, 1 NOS: \$200. 56-62 Non Posi rear end 3:36 (G107) only 1200 miles since complete rebuild: \$250. 61-62 deck lid (2 top car): \$150. All parts plus shipping. Call Fred (970) 669-8616

NOS parts for sale; one set of 4, 63-65 nozzle blocks # 7017244, \$200; high pressure pump cable assy , # 6409698, \$125; High pressure pump kit, \$50; lid gasket, # 7017348, \$20; main fuel control dia. cover, # 7014781, \$200; skinner valve, # 7017361, \$100; thin air meter hose, # 385879 \$75; 1963 air meter adapter, # 7017376, \$200; GF-90 fuel filter, \$50; mid-year license light, # 898005, \$75; arm rests, # 4332259, \$50; midyear door w/strip, # 3829301, \$30;
USED PARTS; maroon micro/s, # 7017363, \$150; 64/65 fuel spider assy w/skinner, \$400; 65/66 ant. switch, \$150; FI distributor 1111070 (4B12), \$750; FI high pressure pump, # 7017042, \$600; Prices do not include shipping, call Bill after 6 MST, (505) 771-2729

Midyear parts for sale; The following are NOS. FI air cleaner element, \$50; '62 thru '64 black armrests, \$50; door w/strips 3841623, 3829301, 3829302, \$30. each; Stainless windshield molding for convert. #3823439, \$200; fuel filter, GF-90, \$50; fuel pump overhaul kit # 6415462, \$50; cranking signal valve, \$50; axle & link, \$150; FI overhaul kits, \$100; doghouse lid gaskets, \$25; main fuel control dia. cover, \$200; skinner valve, \$100;

air meter hose, thin, \$75; '63 air meter apt. 7017376, \$200; Used parts: High-pressure pump, \$700; 64/65 spider with skinner, \$400; power ant. switch, \$150; trans. ignit. pole pieces, \$300; FI dist. (070) dated 4B12, \$850; "W" nozzles, \$200. all prices + shipping. call Bill after 6pm (505) 771-2729

Parts: '66 used rocker panels, good cond - \$100; '64 set non-PB brake lines (new) -\$75; Hooker headers - \$50; non-orig. exhaust -\$60. Bill Barcus (303)773-2633

3328 sq. ft. Corvette Warehouse and Shop. Centrally located, great access to major highways. Rare Industrial 2 Zoning (any type of business or use).

Dirk Gaddis (303) 679-8179
E-mail Racz-Gaddis@att.net

69 Corvette, T tops, 61k miles on chassis, 11 miles on rebuilt orig. motor 350/350 4 spd. The front suspension and brakes have also been rebuilt. Also included is a set of orig. tires with lots of tread left. Body appears to have never been hit. Car would make a good driver. 15K for the car, Rick Nelson at (303) 423-3147

Franklin Mint Models and Promotional Models. Promos back to the mid-70's. Too numerous to list here. Please call Chuck at 719-686-8248 or e-mail at comountainduo@aol.com for listing.

Set of four '63-'64 Corvette repro. KO wheels, with tires. Original GM Corvette Ads in the magazines. *Corvette News* magazines from Vol. 3 No.1. Original T-3 headlamps. Weldon Montgomery (303) 530-1372

'65-'66 steel wheels, one to four or five, various dates, your choice. \$100.00 per wheel or \$600.00 per set of five (match dated). 3124 holley carb dated 565(real, not a restamp). \$800.00 or serious offer. 1961 Owner's Manual with insert card. Good condition. \$100.00 or trade for 1965 Corvette parts or other Corvette parts. Martin Egan (307) 632-5806
E-mail Egan19651977@cs.com

1980 Corvette, VIN 1Z878AS428240, 350 C.I.D., 4-speed, Beautiful new professional custom paint - silver bottom half/ diamond white pearl top half/ bright blue middle stripe. Doeskin interior color, new B.F. Goodrich raised white letter radials 245 6OR 15 on rear/235 6OR 15 on front, T-top, pw, ps, A/C, pb, AM/FM/CD, tilt/telescope steering wheel, tinted windows, 117K miles/30K on rebuild. \$18,000 Phone Jim Richards cell 303-210-6331 for info.

66 Big Block

I have a 1966 396, completely original and unmodified and in perfect running order. If you have a member with a 66 big block car, needing an engine, the casting # is 3855961 and shares ALL parts except the pistons, rings and carb with the 427 Corvette engine. I can be reached at (403) 271-1470, Calgary Alberta Allen Leier <<mailto:allen1leier@shaw.ca>>

Advertisers: Please update the Newsletter Editor with any changes.

THANKS

ROCKY MOUNTAIN CHAPTER OFFICERS

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