

September 2003



Don't ask us, we have no idea! August came and went and we didn't have a club event other than the business meeting, wonder what happened? Oh well, maybe we can make up for it in September.

We had some members go to Carlisle and we're sure they will be sharing their stories when we see them again.

"The Club's Monthly Croaker"

We're not always right, but we're sure of it!

Our Pledge:

To take the simple, and complicate it,
To take the incomprehensible, and merely confuse it,
To make 10% of our news factual, we're just not sure which 10% it is.
But...you'll always get your money's worth!



What's up with the picture of the Z16 optioned hood in the picture? You'll have to turn to page 14 to find the answer to that. You'll be surprised with what it is.

Two big events occur this month, AutoFair and Corvettes In The Queen City. For those of you who are real car junkies, Autofair is Car Nirvana. Our club has 30 spaces reserved to show our cars so sign up if you haven't already, and get those cars cleaned up and join the fun at the Speedway.

Corvettes In The Queen City is the biggest event for us this month and probably all year. It is the club's first attempt at putting something together this large. Walt Krupowicz and his committee have worked relentlessly to make this event memorable and they have succeeded, as you know if you have read the agenda. People from 10 states will be attending, so let's show them how to have a good time. There is still time to sign up so let's make this a big showing.

City
CHEVROLET
proudly presents

Corvettes in the Queen City

September 26-28, 2003
Ready for fun?

Charlotte, NC

Join us for a weekend of conversation, cruisin' and of course Corvettes! Visit us at www.queencitycorvette.com for more info!

Queen City Corvette Club, Inc.

2003 Officers

President	Robert Morgan	844-0205 –H	rmvette@aol.com
Vice Pres.	E. O. Oakley	846-2965 –H	eoakleyjr@aol.com
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Director of Automotive Events	Ben Horack	588-0169 - H	landtramp@msn.com
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Queen City Corvette Club (QCCC) newsletter is published monthly by volunteers and members of QCCC. For change of address and all other QCCC inquiries, write to: **Queen City Corvette Club, P.O. Box 473072, Charlotte, NC 28247**. QCCC is a non-profit club (501-C7), which raises money for and participates with various local children's charities. Dues and donations are not tax deductible. We strive to promote exciting, safe & fun ways to enjoy our Corvettes. We hold business meetings on the second Saturday of each month. Our monthly business meeting usually incorporates a social time afterwards. Our socials are always fun and are focused around food & drink. We've had swimming parties, bar-b-ques, cookouts, day trips and weekend trips. We participate in mountain tours, holiday parades and several homecoming parades at local area high schools. We also participate with several sister Corvette clubs in car shows, drag racing, and autocrossing. After an initiation fee of \$7.00, club dues are only \$8.00 a month, per family, and are to be paid quarterly. These dues go to cover the costs of running the club, mailing newsletters, and subsidizing the costs of our meetings. Club officers serve as volunteers.

To become a member of the QUEEN CITY CORVETTE CLUB, you must own a Corvette and attend at least three (3) monthly business meetings and two (2) events within a six-month time period. Express your wishes for membership during a monthly business meeting, be voted in and begin paying dues.



President's Letter

August 26, 2003

Dear Fellow QCCC Members:

Our meeting last month was hosted by City Chevrolet. Thanks again for their hospitality and use of their facilities. Also thanks to Zaino for their demonstration of how to clay bar and apply the Zaino line of products. It's also fortunate to be Ben Horack whose car was used for the demo. I wonder who picked his car to be the one to use.

Another big push for Corvettes in the Queen City! The committee met this past month and decided it was a definite go with the event. There's still time to sign up so don't delay. Please let any out of town Corvette enthusiasts know of our event. Saturday is our biggest day consisting of a short road tour of historic Charlotte and behind the scene tours at DEI and Hendrick Motor Sports. The day will finish with a dinner and special guest speakers. I'm sure this event will be talked about for years!

Some of you have asked me if I've heard what's going on with Vector Shirts and their company. Funny you guys asked! Kim Lindsey called me the other night and asked if she could send a note for the newsletter to explain what was happening. You'll find her letter in this month's newsletter. From her message, it's good to hear that we will still be able to order our QCCC logo shirts.

I'll be taking nominations for the 2004 board at the October business meeting. If you can't make that meeting, just email me your nomination. I'll contact each nominee to ask their interest. We'll be voting on the new officers at the November meeting. If you have questions on the responsibilities of a position, just ask a current board member. Or you can read about them in the Club's bylaws.

Again, check the social calendar. You can view it at www.queencitycorvette.com for approaching events.

Until next time, save the wave!

Robert



V-P REPORT

Item First – September Business Meeting:

The date of September Business Meeting has been moved to September 6th to eliminate the conflict with Auto Fair. The meeting location will be in the Community Room at the Northcross Medical Center in Huntersville. Social time will begin at 6:00 PM and the Business Meeting will begin at 6:30 PM. As a reminder, the club will provide snacks, but please bring your own non-alcoholic drinks. On a few occasions, we have been short of chairs, so if you can, please bring a chair or two. Directions later in the newsletter.

Item Second – October Meeting:

The October Meeting has also been moved. It is now scheduled for October 4th to eliminate a conflict with the QCCC Beach Trip. This meeting will be held at the Carolinas Aviation Museum in Charlotte. It promises to be an enjoyable location with some interesting planes to visit prior to the meeting. To allow time for enjoying the museum, we will start at 5:15 PM. The museum will close to the public at 5:00 PM. The club will provide heavy hors d'oeuvres beginning at 5:45 PM with the meeting to start at the normal time of 6:30 PM. Directions will be provided in the next newsletter or you can visit their website at www.chacweb.com.

Item Third – December Meeting:

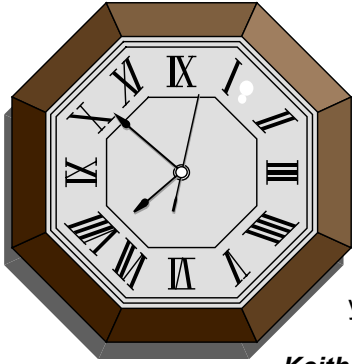
For advance planning, we also need to change the date of the December meeting to December 6th (*Boy, we got into this change mode and can't quit*). This change will allow more time to get gifts wrapped and delivered to our "needy families," so we all can enjoy the holiday season.

That's all for this edition of the Newsletter, and

Hey, Let's Be Careful Out There!

E. O.





QCCC Business Meeting Minutes Saturday August 9, 2003

The August business meeting of QCCC was held at City Chevrolet, Charlotte, NC. Officers in attendance: Robert Morgan, E.O. Oakley, Ben Horack, Eddie Burt, and Jane Burt. President Robert Morgan called the meeting to order at 6:30 pm.

Visitors were asked to stand up, introduce themselves, and tell what year Corvette they have:

Keith Fleming – 1977 Yellow Coupe, **Joe & Linda DiMillo** – 1966 Convertible & 1996 Red Convertible, **Sandy & Deb Galli** – 1963 Silver Coupe, **John & Jaye Maier** – 1996 Green Coupe, **Greg Finnican** (former member) – 1987 Dark Red Convertible & 1990 Black ZR1, **Victor Reveron** – 2004 Coupe (ordered), **James Galbraith** – 1959 White/Silver 16-year restoration-in-progress, **Radu & Gabriella Dimitriu** – 1997 White Coupe, **Bill Brown** – 1966 Blue Big Block Convertible.

No New Members were voted in.

A motion was made, seconded, and approved to accept the July meeting minutes.

Robert Morgan, President

- Thanked the Zaino folks for their very informative demonstration of their waxing products, the City Chevrolet folks for letting us meet at their dealership, and EO & Ann Oakley for the refreshments.
- Congratulated member **Johnny Salonen** on finally getting his 1972 Black Coupe after an 18-month restoration.
- Reported for **Gary Artis**, Treasurer, that our 2003 Budget is on target.
- Election of new QCCC Board Members will be in November. Send nominations to Robert to contact & confirm they will serve if elected. Formal nominations will be made in October.

E.O. Oakley, Vice President

- Asked everyone to sign the Sign-in sheet – visitors too (on the back) and send Newsletter articles & pictures to **Jody Austin**
- The September & October Meeting dates have been changed to the FIRST Saturday in the months. September meeting will be at Northcross Medical Center, Huntersville and the October meeting will be at the Aviation Museum near the Charlotte Airport, with dinner being served.

Jim Weisberg for **Kay Weisberg**, Social Director

- October Beach Trip – send money for dinner(s) & show reservations to her by the September meeting.

Walt Krupowicz, CORVETTES IN THE QUEEN CITY Chairman

- Reported on the status of the CORVETTES IN THE QUEEN CITY event September 26, 27, 28. Does not look like we'll meet the goal of 200 people attending. **Nancy Runnion** reported that 67 people have registered. She has registration forms tonight. The cut-off date is August 15. The Committee will meet this Thursday. Walt reviewed the activities, sponsors, and states whose clubs were invited.
- **Walt** also described the intense and multi-step process that he and **Wendy** had to go through with their 1969 Riverside Gold Coupe to achieve the NCRS rare and prestigious

FOUNDERS AWARD. Among others, their beautiful one-owner car has won Top Flight, Bowtie, and Survivor awards. CONTRATULATIONS!!!

Ben Horack, Automotive Events

- 8/30 Saturday – Matthews Alive Parade – information e-mail to come – sign up now
- 9/13 Saturday & 9/14 Sunday– Auto Fair – 30 cars are needed, sign up now
- 10/25 Saturday – Car Show at City Chevrolet
- Let him know if you're interested in a poker run, coordinated by Jody Austin

Eddie Burt, Director of Membership

- Introduced newlyweds **Rob & Lori Gallman**
- Now have 188 members – 31 new and 19 resignations/non-renewals

Jackie Slavetsky & Dave Gregorino, Members

- They both gave moving testimonies of their successful brain tumor surgery experiences. **Jackie** will participate in a 5K race October 18 at the Mint Museum to raise funds for research. She asked for our moral and strictly voluntary financial support. **David Sigman** volunteered to participate in the run with **Jackie!** An e-mail will be sent with details about the event.

Joe Corl, Member

- August 23 & 24 – HyperFest at the Speedway where you can drive your own car around the Speedway. See www.hyper-fest.com for more info. It's a lot of fun.
- October 17 – 19 – Knoxville Corvette Expo

Ken Smelter, Member

- Has free tickets to the Charlotte Philharmonic concert at Calvary Church October 18

Caroline Lentz, Member

- Has brochures for the Corvette Cruise (ship) to Alaska. Two QCCC couples are going so far.

A motion was made, seconded, and approved to adjourn at 7:20 p.m.

Respectfully submitted,

Jane Burt,

Secretary

QCCC OFFICERS MEETING MINUTES WEDNESDAY AUGUST 20, 2003

The August officers' meeting was held at Artis & Associates office, Charlotte, NC. Officers present: Robert Morgan, E.O.Oakley, Gary Artis, Kay Weisberg, Ben Horack, Eddie Burt, and Jane Burt

Guest: Jim Weisberg.

President Robert Morgan called the meeting to order at 7:10 pm

Robert:

Corvettes in the Queen City is a "go". Only 17 have registered from outside the club. Wendell Strode, Executive Director of the National Corvette Museum is coming too! The Zaino demonstration at the last meeting was well received. Kim & David Lindsey of Vector Shirts are moving to Hamlet, NC, but will still take shirt, etc. orders on-line & by phone. They'll still come to the BBQ & another meeting each year.

Gary:

Reviewed 2003 dues payment status. Had a good response to 3rd Quarter Dues Notice. Will order 250 black & yellow badge/eyeglass straps.

Ben Horack:

August 30 – Matthews Alive Parade – need as many cars as possible, but at least 9 for the Miss Mecklenburgs. Meet by 9:30 am.

Sept 13 & 14 – Auto Fair – Saturday we'll be outside the Speedway, but next to the Entrance at Smith Tower. If it rains, we can back up under cover! Sunday, we'll be inside the track on the grass. Passes will be distributed at the Sept. 6 meeting. Must have 30 cars!

October 10 – 12 – Beach Trip – will probably have 2 groups leaving Fri. at 8:00 am & 10:00 am.

October 25 – Car Show at City Chevrolet – will have 7 trophies

Still working on trip to Tom Smith's in Salisbury

Kay Weisberg:

Discussed what food to provide at the October meeting at the Aviation Museum

Reserved the SouthPark Hyatt for the Banquet in January 2004

Wants to change the Dec. meeting to the 6th due to the proposed meeting place, as well as to give us an extra week to collect & wrap gifts for our Christmas families. Will bring up at the next meeting to see if there's strong opposition.

Eddie:

Will have 5 people eligible for membership in September

E.O.:

Sept meeting at Northcross Medical Center

Oct meeting at Aviation Museum

Discussed inventory whereabouts – who has the banner?

A motion was made, seconded, and approved to adjourn at 8:15 pm

Respectfully submitted,

Jane Burt,

Secretary

Automotive Events



It's hard to believe summer's gone, school's started, 25 MPH zones, and fall's on the way. For those of us that can "Topless" or "Semi Topless," it's a GREAT time of the year- Natural Air Conditioning, WOW!!! The '62 is still in the paint shop, lots of coats, lots of sanding, at least that's their story and they're sticking to it. Maybe by Thanksgiving.

In the meantime, September is such a busy month it actually starts on Saturday August 30th this year with the Matthews Alive Festival Parade. We still need lots of cars, coupes, hardtops & ragtops. We will meet at the parking lot behind Harris-Teeter's offices on "Old Hwy-51" between 9:00-9:30 AM. They want lots of Vettes this year. Those of you that can make it, please email me or call me @ 704-533-1646.

September 13th & 14th is the Fall Food Lion Auto Fair. We'll be outside in Saturday at the main entrance to the Smith Tower where we can get the cars under cover in the event it rains. This is the main entrance so we'll get lots of exposure. On Sunday we'll be inside on the grass in front of pit row. I know this is not ideal but we have committed to 30 cars for both days. I still have 10 openings for Saturday and 12 for Sunday. Please help us out for both days if at all possible. For the new members, this is a great way to get involved and meet your fellow members and get to see LOTS of neat cars.

We'll wrap up September with the Mint Hill Madness Parade on Saturday the 27th. They'll be more on that later this month. October starts out with the Beach Trip to Myrtle Beach on October 10th- 12th. Kay and I will be organizing a couple of caravans down there for those who are interested, 1 early and 1 mid morning, more on that later as well. We end October with the Car Show at City Chevrolet. This is a BIG event and we need a BIG turn out. We're looking for 50+ cars this time, so mark you calendars.

Coming up also are the Christmas Parades in November & December, so order your Zaino Products and get all shinned up. Speaking of Zaino, Steve Treece with Carolina Shine has asked me to convey to all of you that if you need help using his products on heed some instruction, just call him at 704-759-0142 or email him at cashine@juno.com. He'll come to you or you can meet him at his house. For those of you who missed his clay bar demonstration, on Barbara's and my car, really missed an impressive show. We're sold on it. Barbara EVEN clay bared HER Miata!!! Now that really is a testimonial.

We announced at the August Meeting that Jody would put together a Poker Run if we had enough interest. So far I've had 5 cars interested. This is a nice ride through the countryside at "normal" speeds with a chance to win some \$\$\$\$, have fun and fellowship. No special driving skills required so every one has an even chance, even the Miata. Please let me know if you're interested, it's a lot of fun with NO DANGER involved.

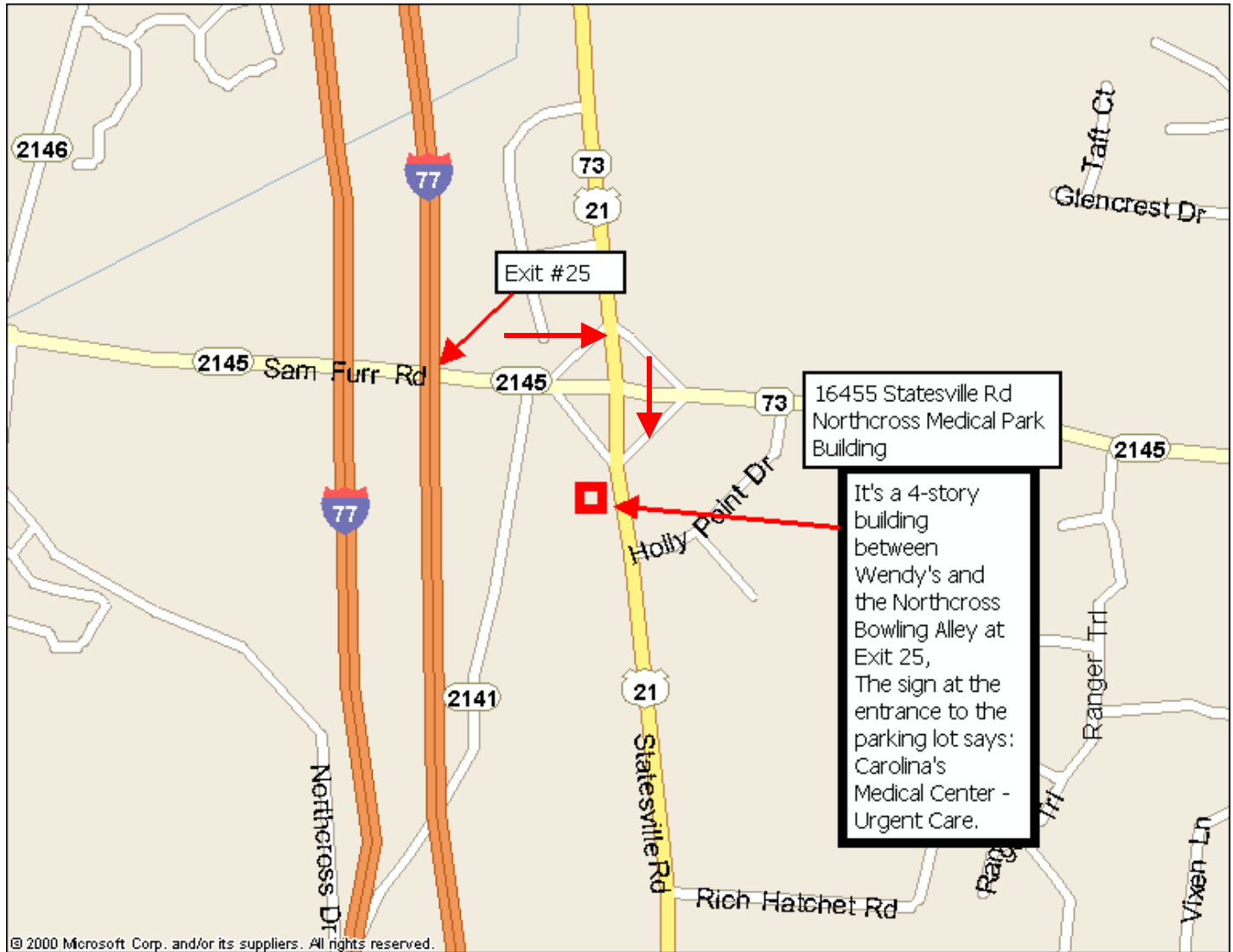
So until next month we'll just be riding around with floppy axles and hidden headlights waiting for our dream car to get home.

Ben Horack - '62 & '00



**Map to our September meeting place.
Northcross Medical Park Building
16455 Statesville Road
Huntersville, NC
September 6th**

Social at 6:00pm Snacks available, but bring your own drinks (non-alcoholic)



Business Meeting, 2nd Saturday of the Month

2003	Event	Time
September		
6 th	Business Meeting @ Northcross Medical Center	6 PM
13-14 th	Autofair/Business Meeting	
26 th -27 th	Corvettes in the City	
27 th	Parade-Mint Hill Madness	
October		
4 th	Business Meeting @ Aviation Museum	6 PM
10 th -12 th	<u>Beach Trip--- Crown Reef S. Myrtle Beach</u>	
11 th	Business Meeting	
18 th	Petit LeMans Road America	
25 th	Car Show – City Chevrolet	
November		
8 th	Business Meeting	
22 nd	Parade – Concord Christmas Parade	
23 rd	Parade – Monroe Christmas Parade	
December		
2 nd	Parade – Kannapolis Christmas Parade	
6 th	Christmas Party (Social)/Business Meeting	



Run For Your Life.....

Run For Your Life is sponsoring the 8th Annual Hopebuilders fundraiser on Saturday, October 18, 2003. It is a 5K run to raise money on behalf of two local children who lost their lives to brain tumors. All proceeds go to Duke University Medical Center for their brain tumor research fund.

Brain tumor survivors **Dave Gregorino** and **Jackie Slavetsky** are soliciting club member participation. **Dave Sigman**, who will be celebrating his birthday on October 18th, (I think 43, but who's counting) has already committed to keep pace with Jackie. We'd like to invite all of you down to cheer us along the race route that begins at the Mint Museum at 8:30 AM.

Contributions to this important cause can be made in any denomination. Make checks payable to "**Duke / Hopebuilders Fund**" and mail them by October 15th to either:

Jackie Slavetsky
6017 Foggy Glen Place
Matthews, NC 28104

Dave Sigman
123 Rocky Trail Ct.
Fort Mill, SC 29715

It is really a wonderful experience that we hope you all can share with us. We hope to continue our post race tailgating tradition followed by an early lunch. We appreciate your support and look forward to seeing you there!



Moments From The Meeting

As you can see, Bruce Goodrich and Ben Horack wore their matching outfits to the meeting, Black Shirts and Khaki shorts. We didn't get the call about matching outfits, did y'all?

There's Dan Dowden to the left waiting for someone to get squirted with that water hose.



Above is Jackie Slavetsky & Dave Gregorino announcing the "Run For Your Life" fundraiser for brain tumor research. See the previous page for details.



Above is Rob & Lori Gallman. They announced their marriage and they satisfied that urge to merge. Congratulations, guys!

You put your left foot in and you shake it all about!

Doggone, he's pretty good, but that looks like the Hokev Pokev to me.



To the left is John Meadows giving everyone lessons on the Electric Slide.

Yo, Vern! Watch This!

by Jody Austin



Well, just when I thought I'd seen all of the "Hey Y'all, watch this!" events, I witnessed a new one here at the lake yesterday evening.

A friend who lives a couple of coves from me was having a BBQ yesterday in the hot sun with cold beer, powerful boats, cold beer, a lot of testosterone and cold beer. (Do you notice a common theme in this story?) I couldn't go until late in the evening, and about a half hour before dusk, I pulled into his dock and see about 20 people holding some odd looking contraption on a concrete boat ramp. The ramp leads down to the water and on each side of this 10-foot wide ramp are piles of rocks to prevent beach erosion. After careful observation I see the people stretching out a

parachute (parasail to some) on the ramp behind this guy (AKA dumbass), who was strapped into the parachute. There were 4 guys beside him with leaf blowers blowing air into the chute so it would billow up. The rope from the harness, with the guy strapped into it, is attached to a ski boat floating out about 100 feet in the water, with both occupants of the boat draining their beers. I asked the guys on the ramp why they were using the leaf blowers and they said because it would give him a running start. Huh Oh! I could see catastrophe written all over this.

About that time someone shouted, "HIT IT!" and the race was on. The boat took off and dragged this body, with his knees scrapping, down the ramp and through the rocks beside the ramp while the chute was trying to billow, but couldn't maintain enough air so it collapsed. The boat continued pulling what looked like a gigantic wad of bubble gum behind it through the water while "Start Me Up" by the Rolling Stones blared from the boat's speakers. Everyone on the ramp is hollering, laughing and saying, "Damn, did you see that!" Finally the towboat stopped and a bunch of guys jumped on someone's boat they had designated "Rescue 1", and went after the chute and its occupant.



After dumbass was pulled aboard the rescue vessel, everyone aboard was telling him how great he'd done and no doubt he'll make it on the next try. "Next Try?????" Dumbass had dislocated his shoulder, suffered a deep cut on his knee and scrapped his shins on the ramp and the piles of rocks and these guys were talking about the "Next Try"! Thank God Dumbass's wife was there and brought it all to a halt.

After everyone got back to the dock and the damage assessed and treated there were laughs aplenty and the beer flowed until the early morning hours. Damn, I love this place, it's paradise!!!

I can only guess how Dumbass feels this morning. But one thing is for certain, here on the shores of the Lake Norman, the Emergency Medical personnel will always have a job!

A Z16 Convertible? No way, Dude! Oh Yea, way, Dewd!



We know, we know, the Z16 option is supposed to be available only for the Z06. That's what Chevrolet wants you to believe, but here is a **Z18** option that was available for this '04 convertible. If you want one like it go down to your local Chevy and specify the **Z18** option on the order form and you might get one just like this. At least that's what **Bob Denney** said he did and see what he got!

Doggone Bob, that's *real* nice.

Did you know.....



1958 was the LAST year of the tach with the "cumulative engine revolution counter" which first appeared in the 1953 Corvette. In 1958 the tach was used on 230, 245, and 250 hp cars and NOT on the 270 and 290 hp cars. The Part number is #1548631 for 1958.

Introduction to Digital Photography

By Charlie Binder

MEGA-PIXELS

One of the most talked about features of a digital camera is the number of mega-pixels (MP-millions of pixels). In simplest terms, a pixel is the photographic equivalent of one dot of the electronic photograph. The more "dots" being recorded, the finer reproduction of the original image. This also means that more MP you have, the more you can "enlarge" the image without suffering loss of quality. (There are other variables that play into the quality of the print.)

If you are in the market for a digital camera give serious consideration to what you will be doing with the final product. Keep in mind: the larger the MP the larger the file size needed to store that image.

Many people send the digital images via e-mail or post the images on a web site. For these purposes you do not want a large MP offering. Actually, most computer formats are good at 640 by 480 pixel size. This translates into a 0.3 MP! Files that small can easily be transported via e-mail without tying up your Internet connection. Try sending a 4 MP file and you might find that your file may be too large for many e-mail mail boxes! Additionally, your friends might not appreciate waiting up all night for your photos to be downloaded.

Most cameras sold today have a large MP rating, which is often the maximum for the camera. Typically the user selects different "quality" sizes for the photos, which translates into different MP sizes for the image (and also into different files sizes).

When making enlargements, consider the following as a rough guide to produce a good quality final print size. (Using a reference of about 200 dot per inch.)

MP Size	Max Print Size
1	4x6
2	5x7
3	8x10
4	11x14

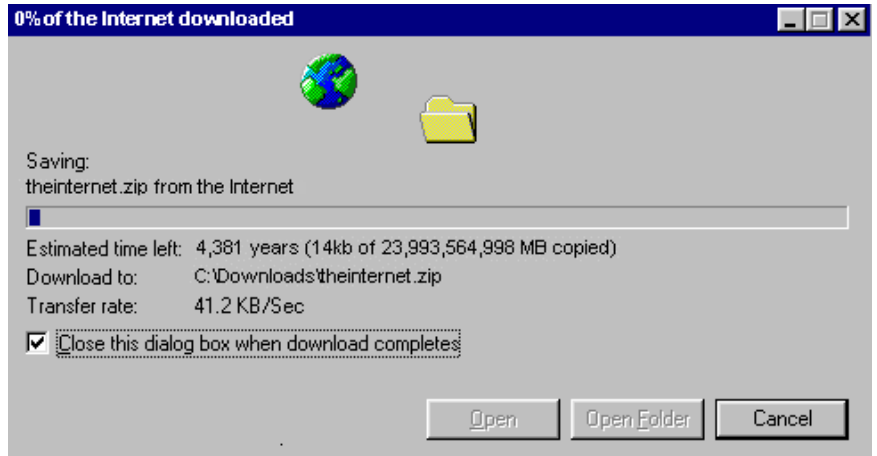
Quality enlargements also depend on the steadiness of the photographer and the quality of the lens. Also, it should be noted that most graphic software packages can reduce large MP files for web or email use.

The next segment will discuss memory and files sizes.

Huh? He said what?

Contributed by Suzie Black

Some of you might have heard this before, but for those of you who haven't, you will enjoy it. We on the newsletter staff can't verify how true it is, but it is funny, nevertheless. General Motors didn't take the insult sitting down.

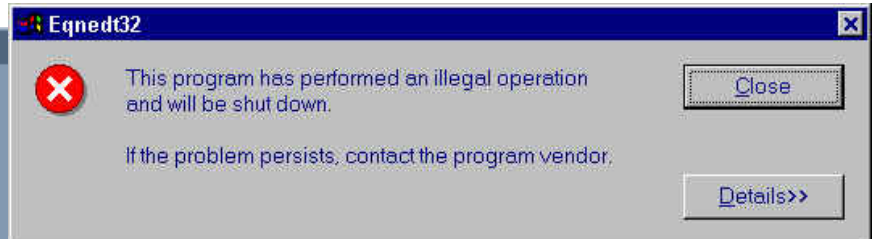
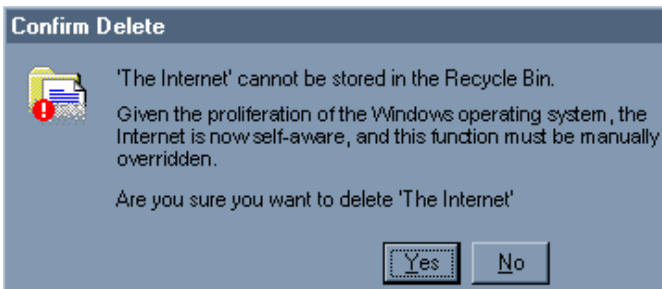


At a recent computer expo (COMDEX), Bill Gates reportedly compared the computer industry with the auto industry and stated, "If GM had kept up with the technology like the computer industry has, we would all be driving \$25.00 cars that got 1,000 miles to the gallon".

In response to Bill's comments, General Motors issued a press release stating:

If GM had developed technology like Microsoft, we would all be driving cars with the following characteristics:

1. For no reason whatsoever, your car would crash twice a day.
2. Every time they repainted the lines in the road, you would have to buy a new car.
3. Occasionally your car would die on the freeway for no reason. You would have to pull over to the side of the road, close all of the windows, shut off the car, restart it, and reopen the windows before you could continue. For some reason you would simply accept this.
4. Occasionally, executing a maneuver such as a left turn would cause your car to shut down and refuse to restart, in which case you would have to reinstall the engine.
5. Macintosh would make a car that was powered by the sun, was reliable, five times as fast and twice as easy to drive - but would run on only five percent of the roads.
6. The oil, water temperature, and alternator warning lights would all be replaced by a single "This Car Has Performed An Illegal Operation" warning light.



7. The airbag system would ask, "Are you sure?" before deploying.
8. Occasionally, for no reason whatsoever, your car would lock you out and refuse to let you in until you simultaneously lifted the door handle, turned the key and grabbed hold of the radio antenna.
9. Every time a new car was introduced car buyers would have to learn how to drive all over again because none of the controls would operate in the same manner as the old car.
10. You'd have to press the "Start" button to turn the engine off.

TECH STUFF –

How do tuned intake runners work on your car?

The intake system on a four-stroke car engine has one main goal, to get as much air-fuel mixture into the cylinder as possible. One way to help the intake is by tuning the lengths of the pipes. When the intake valve is open on the engine, air is being sucked into the engine, so the air in the intake runner is moving rapidly toward the cylinder. When the intake valve closes suddenly, this air slams to a stop and stacks up on itself, forming an area of high pressure. This high-pressure wave makes its way up the intake runner away from the cylinder. When it reaches the end of the intake runner, where the runner connects to the intake manifold, the pressure wave bounces back down the intake runner.

If the intake runner is just the right length, that pressure wave will arrive back at the intake valve just as it opens for the next cycle. This extra pressure helps cram more air-fuel mix into the cylinder -- effectively acting like a turbocharger.

The problem with this technique is that it only provides a benefit in a fairly narrow speed range. The pressure wave travels at the speed of sound (which depends on the density of the air) down the intake runner. The speed will vary a little bit depending on the temperature of the air and the speed it is moving, but a good guess for the speed of sound would be 1,300 feet per second (fps). Let's try to get an idea how long the intake runner would have to be to take advantage of this effect.

Let's say the engine is running at 5,000 rpm. The intake valve opens once every two revolutions (720 degrees), but let's say they stay open for 250 degrees. That means that there are 470 degrees between when the intake valve closes and when it opens again. At 5,000 rpm it will take the engine 0.012 seconds to turn one revolution, and 470 degrees is about 1.31 revolutions, so it takes 0.0156 seconds between when the valve closes and when it opens again. At 1,300 fps multiplied by 0.0156 seconds, the pressure wave would travel about 20 feet. But, since it must go up the intake runner and then come back, the intake runner would only have to be half this length or about 10 feet.

Two things become apparent after doing this calculation:

The tuning of the intake runner will only have an effect in a fairly narrow RPM range. If we redo the calculation at 3,000 rpm, the length calculated would be completely different.

Ten feet is too long. You can't fit pipes that long under the hood of a car very easily.

There is not too much that can be done about the first problem. A tuned intake has its main benefit in a very narrow speed range. But there is a way to shorten the intake runners and still get some benefit from the pressure wave. If we shorten the intake runner length by a factor of four, making it 2.5 feet, the pressure wave will travel up and down the pipe four times before the intake valve opens again. But it still arrives at the valve at the right time.

There are a lot of intricacies and tricks to intake systems. For instance, it is beneficial to have the intake air moving as fast as possible into the cylinders. This increases the turbulence and mixes the fuel with the air better. One way to increase the air velocity is to use a smaller diameter intake runner. Since roughly the same volume of air enters the cylinder each cycle, if you pump that air through a smaller diameter pipe it will have to go faster.

The downside to using smaller diameter intake runners is that at high engine speeds when lots of air is going through the pipes, the restriction from the smaller diameter may inhibit airflow. So for the large airflows at higher speeds it is better to have large diameter pipes. Some carmakers attempt to get the best of both worlds by using dual intake runners for each cylinder -- one with a small diameter and one with a large diameter. They use a butterfly valve to close off the large diameter runner at lower engine speeds where the narrow runner can help performance. Then the valve opens up at higher engine speeds to reduce the intake restriction, increasing the top end power output.

Inquiring Minds always wanted to know.....

How does a blonde print email?



Don't get mad at us, this was contributed by Paul Pelkey

There's a Vacation Place For Everyone!

Here's something one of our members sent in to our travel editor:

WANTED: Somebody to go back in time with me. This is not a joke. P.O. Box 322, Oakview, CA 93022. You'll get paid after we get back. Must bring your own weapons. Safety not guaranteed. I have only done this once before.

If any on you guys want to go on this trip, just contact our travel editor and he'll give you more details.

Good Luck!!

Vector Shirts

P.O. Box 1029
37 Hamlet Avenue
Hamlet, NC 28345
<http://www.vectorshirts.com/>

August 23, 2003

Dear Club Members:

Many of you have heard that Vector Shirts is moving out of the immediate Charlotte Area. For some of you, this is news. David and I have purchased a building for Vector Shirts in Hamlet, North Carolina, about 75 miles east of Charlotte. David will be retiring in a few weeks and we will be moving to our new home in September.

Many of you ask, "Will you still work with the Queen City Corvette Club?" Rest assured, we will continue to welcome your business.

We will need to make minor changes to our ordering process with Club Members. For the short term, all orders will be mailed to us and merchandise will be shipped directly to the customer. Remember, we are just an e-mail address away.

We are in the process of adding a shopping cart feature to our web page. This will enable Members to order directly on-line and pay by credit card. When this feature is available, we will notify the Club.

I am sure the move will have its bumps but we are very excited. Our relationship with the Club Membership has been very enjoyable. We look forward to serving the Queen City Corvette Club for many years.

Sincerely
David and Kim Lindsey
Vector Shirts