

NORTHLANDER

NORTH COUNTRY REGION

PORSCHE CLUB OF AMERICA

Volume 38 Number 5

June 2009

IN THIS ISSUE

Spring Rally

Turbines in Automobiles Part 2

DE at NHMS

Autocross #1

... and more





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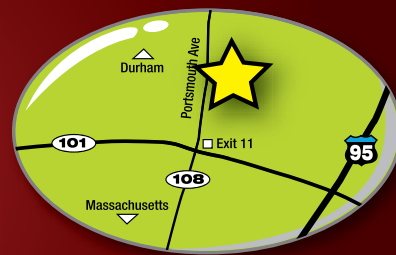


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June 2009

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The regular article and Advertising closing date for the Northlander is the 1st of the month preceding the publication month. See page 46 for advertising rates.

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On the cover



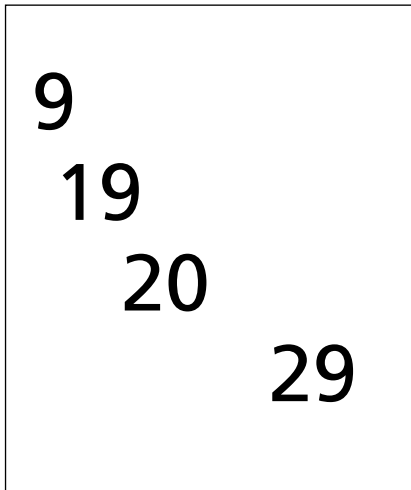
It's spring. You can see it in those green buds at the road side. NCR's Spring Rally was a blast. Matt headed off to the Indian Head Resort in Turbomama pausing along the way to take this excellent shot along the "Kanc" (Kancamagus Highway). Note the carefully executed composition of the car placed exactly on the "third" and "contained" by the yellow line.

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**JUNE 2009
AT A GLANCE**

Date/Time	Event Information	Contact
June 9 6pm	Board Meeting	president@ncr-pca.org
June 19 8am	Zone 1 DE - 48 hrs Watkins Glen	http://zone1.pca.org/
June 20 8am	NCR AX # 2 - Devens	autocross@ncr-pca.org
June 29 8am	PCA National Parade - Keystone, CO	www.pca.org
July 6 8am	DE - Mt Tremblant	de@ncr-pca.org
July 10 8am	DE - Calabogie	de@ncr-pca.org
July 11 8am	NER AX - Devens	autocross@ncr-pca.org
July 14 6pm	Board Meeting	president@ncr-pca.org
July 19 8 am	NCR AX # 3 - Devens	autocross@ncr-pca.org
July 27 8am	DE - NER at NHMS	de@ncr-pca.org
August 2 8 am	NER AX - Devens	autocross@ncr-pca.org
August 5 7 am	DE - NHMS	de@ncr-pca.org
August 11 6 pm	Board Meeting	president@ncr-pca.org
August 15 8 am	Rally / Ramble	rally@ncr-pca.org
August 23 8 am	NCR AX # 4 - Devens	autocross@ncr-pca.org
August 29 8 am	Zone 1 Autocross	http://zone1.pca.org/

Please note: calendar information is correct at the time of Northlander going to press but for the latest information you should check our web site: www.ncr-pca.org



Ivy Leonard

Really good friends are hard to find and hard to forget ...

Some people have one friend and some have many friends. What is a friend? Well a friend is someone who supports you through thick and thin. Someone that won't lie to you or make up stories to avoid the circumstances. Someone you can be yourself with. Someone who doesn't mind if you make a fool of yourself from time to time.

I know some go through life with only a few friends, some with lots of them. But whether you have just one or many, you should be able to show emotion with them, share feelings with them without being judged. They cheer you up when you are down, challenge you when you're not getting 'it' done, motivate you when you are ready to give up, and sometimes when life is tough they show you that things will get better. They are there for us when things are going great and there when things are at their worst. We can act silly with them, we can laugh, we can cry, in summary be real in display of emotion. A true friend walks into your world when the rest walk out.

You may have met your best friend or the best of your friends in school, perhaps high school or college, or if you have been really fortunate, in elementary school. It may have been at a favorite event or gathering. However, it was that you first met and discovered that special bond. Hold onto it. Don't let it slip away, for often, if not worked on, friendships can dissolve over months or years if you don't invest the effort to keep them strong. Like a Porsche, with good maintenance a friendship can last a lifetime.

When I speak of maintenance, I mean things as simple as these: the impression of a touch, a smile, a kind word, an ear that really listens, a compliment, any simple act of caring. Any of these little things, at just the right time, could change someone's day or maybe even his or her life.

I try often to let my friends know how special they are to me. Sometimes with a hug, sometimes with a smile, with a handshake and gesture, or with just a mere wink. And every once in a while, when it seems really to be needed, there seems to be special power in just voicing it as well.

Really good friends are hard to find and hard to forget. We often think of our friends when we see something they may like, or hear something they would be interested in. I have even clipped an article because a friend may enjoy it. I would help a friend in trouble, as I would hope they would do the same for me. True friends are not opportunists. They don't help because they have something to gain from it. True friendship is selfless.

My best friends are family – I hope you all can feel that as well. But I also have friends I feel close enough to consider as family though not blood related. Friends that I could talk about anything with. Share anything with, and trust no matter what.

Why all this gooey, mushiness about friends? The answer is because within this little NCR region of 500 members I have made some of my best friends. Friends that I hope to have around me for a long time. Some I can call Buddy, and some I have given other nicknames to. Friends that have made me laugh and cry, friends that have been there for me, who have helped me without need of being asked, who have put a smile on my face when I was frowning. The email that makes me chuckle all by myself. The kindness so many have shown me many times over. I really care about you all. You have entered that circle of closest friends that support me, trust in me, and with whom I so much enjoy spending time.

continued on page 28 ...



Tracey Levasseur

An interesting thing to note about Facebook is it's a time killer...

Recently I joined the social website Facebook. At first it was because a woman who I sold a pup to several years ago asked me to join. She wanted to post photos of her dog so I could see them. As soon as I joined I was getting requests from friends and former classmates to become "friends." For those unfamiliar, Facebook is set up so that people ask permission to be your "friends," thus giving them access to your home page and vice versa. You can confirm or ignore requests thereby minimizing anyone you don't want to associate with. What I discovered quickly was my circles of "friends" are mainly people I went to high school with, followed by coworkers.

As I figured out how to navigate through Facebook it became obvious that many of my high school classmates were posting old photos from their childhood and early school days. Within a couple weeks of joining one of my friends set up a group called "Class Reunion" because, yes this year is our 20th high school reunion (now you know how old I am). Anyway, this friend set up the group to see if there was any interest in a reunion party and if so, where and when to hold it. The response was like machine gun fire. Over 40 people joined the group and threw out positive comments and suggestions. There wasn't this much enthusiasm for our 10th reunion! Of course, there was also no Facebook 10 years ago either.

Facebook has become a cyber coffee shop where people can find old friends and reminisce through chat and photos. It's also a way for individuals to post their likes and dislikes, for all their friends to see. One can set up groups and invite like-minded individuals to join and talk about a particular hobby or interest. In the case of our "Class Reunion" group, we discussed the particulars of an event instantly with dozens of classmates saving time and money. Since you can see who is online at any given point you can chat through Facebook like Instant Messenger or you can send a message if someone is not online, similar to an e-mail account. You can also find someone you lost contact with because Facebook, as the name implies, shows a profile photo along with the person's name (and in most cases that photo is of the person). So if your friend has a very common name, you enter the name and all people with that name registered on Facebook appear with their profile photo and geographical location. Try something scary: search for your own name and see how many people there are with it!

An interesting thing to note about Facebook is it's a time killer. One could spend hours browsing through all the games, groups and organizations associated with Facebook (many television news stations, magazines and newspapers have created Facebook accounts) and before long

continued on page 28 ...

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Lisa Roche

New Members:

Mark B. Beaudreau
Sandra Beaudreau
Wood River Jct, RI – 1984 930 Turbo

Mark Ferlan
Manchester, NH – 2002 996 C4

Charles B. Franks
Meg Franks
Hanover, NH – 2007 Cayman

Brandon R. Haas
William Haas
Concord, NH – 1999 Boxster

Robert Kelliher
Zoe Kelliher
East Freetown, MA – 2007 997

Frank Sanford
Jennifer Buchbinder
Contoocook, NH – 1988 944

Dennis Schindler
Elizabeth Schindler
Rutland, VT – 2000 Boxster S

Member Anniversaries:

1 Year:

Jeffrey A. Bergeron
Claremont, NH - 1984 944

Peter M. Cerroni
Dublin, NH – 2007 Cayman

Jim W. Eisenhower
Ellen Eisenhower
Wolfeboro, NH – 2004 Boxster S

Roland Glassman
Theresa Glassman
Bedford, NH – 2008 911S

Bradford F. Hancock
Newbury, NH – 2000 Boxster

Michael J. Kiritsy
Rebecca Kiritsy
Keene, NH – 1986 944

Matthew MacKinnon
Linda MacKinnon
Bethlehem, NH – 1984 944

William F. Matott
Joyce Matott
Manchester, NH – 1978 911
Turbo

BJ McNeal, Jr.
Kelly McNeal
Dover, NH - 1999 911 C4

2 Years:

Thomas C. Brown
Jon Brown
Bedford, NH – 1989 944 Turbo

John B. Caswell
Audrey Caswell
Dover, NH – 2006 997 C2S

Thomas P. Feid
Linda Johnson
Rye, NH – 2001 911

Philip B. Healy
Lee-Ann Healy
Amherst, NH – 2007 997T

Bob Sauer
Ginger Sauer
Princeton, MA – 1985 911

Todd R. Silver
Kathryn Stiede
Hollis, NH – 2001 911T

Paul A. Valente
Bonnie Valente
Wilmington, MA – 2007
Boxster S

continued on page 28 ...

Please notify the membership chair: membership@ncr-pca.org if you have changed your address.



Jay Gratton

I actually don't even enjoy fishing that much, but this weekend is more than just catching fish...

I think it is important to love the career that you dedicate your life to. There is nothing better than getting up every morning and being excited about the job that you do. Being a high school teacher at Merrimack High School is fantastic. I get to work with dedicated and caring teachers and the most spirited and enthusiastic kids I have ever been around. Besides being called Mr. Gratton in the classroom I also get the moniker of Coach Gratton because I am one of the boys and girls track and field coaches at Merrimack as well. As much as I enjoy working with kids in the classroom, the highlight of my day is getting out to the track after school and coaching some of the most amazing high school athletes in the state. Of course coaching takes up most of my spare time, but it is all worth it to see those kids succeed and improve over the course of the season.

The other benefit of teaching is having the summers off. I do work part-time for Skid School which is the defensive driving program for teens (www.skidschool.us, nice plug huh?) but for the most part I try and enjoy myself with Porsche Club activities and mini adventures with Jaime. However, those members that know me, will be surprised to discover the highlight of my year is not a Porsche Club event. The highlight I look forward to more is the yearly fishing trip I take to the Gratton family cottage in Boothbay Harbor, Maine, with four of my friends who I have taught and coached with over the years.

I actually don't even enjoy fishing that much, but this weekend is more than just catching fish. It is a weekend for the guys to get away and enjoy being guys, to eat large amounts of sea food, play large amounts of poker, tell large amounts of jokes and catch large amounts of fish. Of course we have traditions that we keep with every year that we don't dare break. The weekend prior to "Fishing Trip" we descend upon the local sporting good

store to load up on new equipment. Last year I bought a fishing pole that could pull in Jaws himself, probably overkill but you can never be too prepared. We always make t-shirts to commemorate the weekend and which we wear fishing. We start every weekend off by plunging off the dock into the cold water, we have lobster for dinner the first night and we play a round of golf on the front lawn after mid-night (you have to be there to understand).

For the last few years we have hired a charter boat to take us all out for stripers (the fish, right? Not the exotic dancer?) and we have had tremendous success; always eating as kings the night of our voyage. This year will be the maiden voyage for the Gratton family's new Boston Whaler and while the Whaler might make us all look like we know what we are doing, I can promise you we certainly don't. I have a feeling the success rate for catching anything will dramatically go down, but at least the amount of money we return with will dramatically go up (I don't understand this). This will please our wives a great deal as we will come home with more money and smell less like fish (I don't understand this sentence). Now the countdown has officially begun for July 16th to get here and let me tell you it cannot get here fast enough. I can only hope that Boothbay Harbor is ready for Fishing Trip '09.



Judy Hendrickson

LOOKING BACK



2nd Prize Winners: (l-r) Jim & Debbie Gratton with son Jay. (1st Place Winners unavailable for photo)

While looking through the Northlanders from June 1979, 1989 and 1999 I was struck by the constancy of THE SPRING RALLY. Each issue had coverage of that perennial event yet each had its own uniqueness. While I suspect you will read about this year's Spring Rally elsewhere in this issue, here are a few highlights from past years and you'll see why someone made the remark at this year's rally that at least the Gratton's didn't win the 2009 rally.

1979: No Spring Rally but the advertising for the June tour tells a lot about how the price of things has changed. Destination was Lauren's in Killington, VT (did you know that Killington is the site for the 2011 Porsche Parade?). Dinner (choice of shrimp scampi, veal marsala or steak) was \$15 including tax and tip with

optional lodging at \$10 per person double occupancy or \$15 single (room with bath) or \$8 per person (double occupancy) or \$12 per person single (room with shared bath) at the Turn of River Lodge just down the road from Lauren's.

1989: May 7, Press on Regardless Rallye. Hosted by Ed Byrnes Porsche in Dover (now Porsche of Stratham), the rally was accompanied by a spring open house of the dealership. Thirty-two teams competed. While most were in Porsches, Chevy Lumina, Audi, VW Sirocco, Cadillac, Alfa Romeo and Pontiac GTO were also to be found among the participants. In fact, the winners of the rally, a time speed distance (TSD) type, were Wayne and Brandon McCarthy in the Chevy Lumina. Jay's parents, Jim and Deb Gratton, placed second in their 944 and I am sure that

young Jay was in the back seat. There were some great accompanying photos with the article. Back then you got a photo in print by first having it converted to a "half-tone", basically converting a photograph to a series of microscopic dots that the printing press ink would then pick up in various shades of gray. So scanning one to reprint in this day of digital technology usually produces less than desirable results and often produces a moiré effect. However, we just can't resist reprinting this photo of Jim, Deb and a very young Jay Gratton. Hard to believe this is our current Vice President! The afternoon ended at the dealership with a BBQ and door prizes enjoyed by more than 75 friends and family.

continued on page 38 ...



Paul Frucci

Life is hard. Driving well is the best revenge

Photographs for DE on pages 21, 21 & 23

Wow! We just finished our first event of the season. It wasn't just any event. It turned out to be a "happening." Mostly great, but a few not so great things happened.

First the great. The first day of the three-day event was a day dedicated to novices. Duh, that's why we called it "Novice Day." We had about 43 "newbies" who were treated to a veritable smorgasbord of first time educational activities: over two hours of classroom instruction, including time with Dennis Macchio from Bertil Ross Racing, an hour of car control exercises, and four full sessions on the track (as much as one would get in a full DE day). Talk about getting your money's worth! We had near universal positive feedback on the day, including from Dennis Macchio who commented that he'd not seen such a well run novice day program. High praise indeed. Congrats to Steve Gratton for organizing the day and huge thanks to all the instructors who donated their time. Our partners from NER ran the car control exercises and we thank them for their tremendous contribution to the events success.

Days two and three had great weather, great attendance (with 125 and 109 participants respectively), and a superb steak and lobster dinner on Tuesday night. We had some great door prizes at the dinner, courtesy of iRacing and Rennline. Many thanks to Kevin Bobbitt at iRacing and Paul Jacques from Rennline for their most generous gifts. iRacing also had their demonstration trailer at the track and many of our participants were able to try out their fantastic race simulation program. It's addicting, trust me.

Dennis Macchio made himself available for personal driver coaching and had a full dance card of students over the two days. We will certainly be inviting Dennis back.

The not so great: We did lose some track time on Tuesday morning due to a dozen quarts of oil being dropped in the

chute going into turn 3 (no names will be mentioned ☺). Our crack operations team got it cleaned up and got everyone back on the track, and with some magic from the scheduling gods we were able to recoup and get everything back on schedule by noon. Have I mentioned we have an awesome team? We have an awesome team.

The bummer of the event was NCR's first ever "metal to metal" incident in one of the last sessions on Wednesday. No one was hurt, save a few egos, but it will certainly give us some cause for introspection on what we could have done differently to better prevent this type of incident. We have always prided ourselves on the safety record of our events, and this will certainly give us an opportunity as a DE team to revisit some of our processes to make sure we are doing everything possible to ensure the safety of our participants and their cars.

Changing the subject. Our joint event with NER at Calabogie as of this writing has precious few NCR member registered. This is a great track located in a gorgeous area west of Ottawa. If you've not been able to give it a try, I strongly encourage you to register. There are bathrooms and showers at the track, and camping is allowed in the paddock area, so you can keep the cost of traveling down. Camp NCR will be there in force!

Once last thing: I got my "new to me" RSA on the track after its winter "spa treatment." Two words: "Freaking Awesome"! I'm heading up to Watkins Glen for the Zone 1 event in June, then Tremblant and Calabogie right after the 4th, and back at NHMS on July 27th and 28th. I look forward to seeing many of you at those venues. Life is hard. Driving well is the best revenge.

As always, I welcome your comments at de@ncr-pca.org.

See you at the track!

TECH DISCUSSION: GAS TURBINES AND AUTOMOBILES

David Churcher and Jack Saunders

This is part two of our discussion on gas turbines. In this installment Jack describes the working parts of a turbine, tells about his career in the field, and relates this to the turbo in a Porsche



An Indy 500 car of the 1960s with a T-58 turbine installed. Photographer unknown.

This sequel to David's quick sweep of the history of gas turbine powered race cars describes the last attempt to have such a car compete with conventional reciprocating internal combustion engine powered Indy 500 race cars in 1966. This involves me and my career as a GE aircraft (A/C) gas turbine design engineer because I designed the compressor, turbine and combustor of the T-58 helicopter engine (see Fig. 1, page 14), around which the Indy racecar chassis and body were built. (See Photo above). As importantly I will identify current examples of technology transfer from A/C to cars, especially race cars and then refer to my crystal ball to guess the likelihood of gas turbines powering cars of the future.

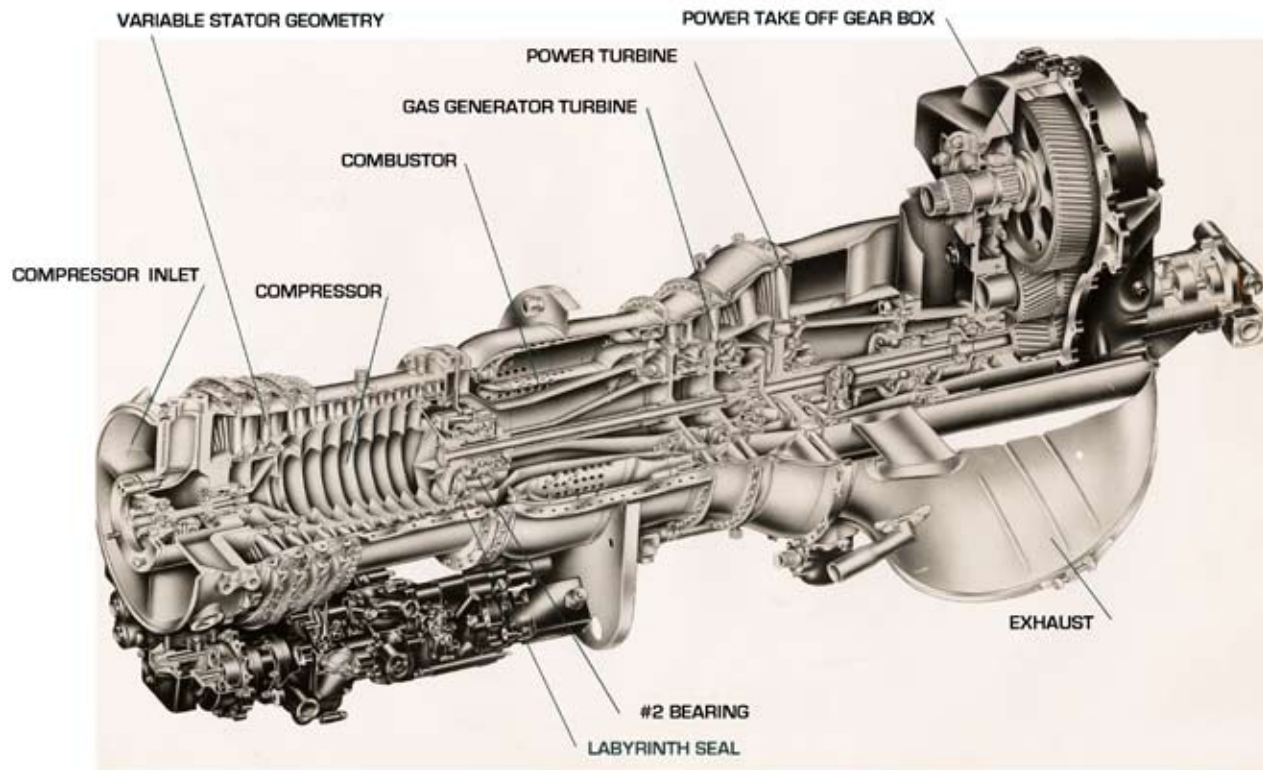
Though not central to the main thrust of this article, I think the story of how GE was selected to develop the jet engine by the U.S. Military, while World War II was in its waning days, would interest most readers.

We start with Englishman Sir Frank Whittle who invented the gas turbine powered jet engine before the war, but it failed to interest the Allies. So, Whittle formed his own company to develop the gas turbine jet engine which powered several British A/C (air craft) before the Germans built their own advanced fighter aircraft that attacked the Allies toward the end of the war. This woke up the U.S., who promptly (but belatedly) scurried about looking for a company that could expedite the design and manufacture of these new aircraft power plants to challenge the Germans.

Well, there couldn't have been a better candidate than GE because they were the inventors (Dr. Sanford Moss) and mass producers of the turbo-superchargers (the ancestor of all car turbo chargers and look alike) that made it possible for the pre-jet age reciprocating-engine-powered bombers and transports to operate at high altitudes (above 25,000')

where the oxygen content is too low to produce adequate power in normally aspirated engines. This is a good point to introduce you to fundamentals of various A/C and car gas turbine power plants and components.

Let's start with the basic gas turbine. The simplest form of this is the A/C jet engine (powers airliners and military A/C) which is comprised of: (see Fig. 1) (a) A rotating compressor which compresses air entering from the inlet to about 130 PSIG; (b) A combustion chamber into which the compressed air flows and fuel is injected and intimately mixed and ignited (by a spark) so that it burns uniformly to an average of about 1650°F. However, if mixing is poor, peaks of 2200°F can burn out the turbine; (c) This hot gas then flows into the gas generator turbine causing it to rotate and drive the compressor that's connected to it via a shaft. Finally, (d) this gas is passed into a conical exhaust



GENERAL ELECTRIC T58 TURBOSHAFT ENGINE

FIG. 1

section nozzle which accelerates this flow of hot gases causing a very high velocity jet to the rear, resulting in high thrust, propelling the A/C forward. Please note that Figure 1 depicts a "turbo shaft" gas turbine engine in which the exhaust cone of the jet engine (described above) is replaced with a power turbine section that produces shaft power that can be utilized to transmit torque to (a) turbo prop engines, (b) helicopter engines, or (c) to race car wheels via the RPM reducing gear box shown in Figure 1. Which brings me to the "raison d'etre" of this article, namely to share with you my experience in designing and developing the GE T-58 turboshaft engine whose cross-section is shown in Figure 1. I'll briefly indicate some of the design and technical challenges that we faced and how I dealt with some of them on the road to ultimately producing the most reliable helicopter engine used around the world in critical roles like North Sea and high altitude rescues, and most noteworthy, has powered every U.S. Presidential helicopter to this day. From a technical challenge aspect, the high HP/weight ratio of $1900\text{HP}/267\text{ lb} = 7.10$ of a rugged, reliable engine operating successfully for over 50 years (I'm getting old) is a great testimonial to GE's technical and production achievements. Proof of the high reliability of the T-58 is the fact

that the Coast Guard flies Sikorsky rescue helicopters with just one T-58 engine that has never failed.

Now, a snapshot of the type of challenges that present themselves and must be overcome in the development of advanced technology power plants. Interestingly, I've learned from Porsche's famous racing guru/engineer, Norbert Singer, that high performance race cars experience similar problems which are also solved by expedited engineering analysis, highly instrumented engines and cars tested in all environments -- including in wind tunnels. My role in the '50s as a young design engineer on the T-58 turboshaft engine task force was to design, develop and ultimately qualify the engine for military use by passing many component and complete engine tests. And for commercial use, even more stringent FAA tests must be passed to protect the civilian public. I was responsible, at this stage, for the combustor and gas generator turbine shown in Figure 1.

The general challenge was to design components that must withstand the most extreme conditions of high stress at very high temperatures and to survive in a vibratory environment and which threatens metal fatigue and failure, which of course must be avoided. This is

done by stress and metallurgical analysis to calculate how many hours the parts can run safely before failure, and then replacing them in time to avoid a failure of my parts -- because lives are at stake in a helicopter crash.

A few examples of close calls I had, and how they were dealt with using all the resources of our team successfully, suggested several parallels in car development, especially in endurance racing. I guess that's why I was drawn to Norbert Singer -- Mr. 16/24, i.e. this track legend won 16 major 24-hour races for Porsche partially by immersing himself in the myriad details of the total car and determining, through exhaustive testing of highly instrumented critical components as well as instrumented car tests at the tracks, where the weak spots were and planned for accordingly. See Figure 2 for a photo of me rubbing elbows with Herr Singer at our last Zone 1 Tech Tactics while sharing techniques for extracting secrets of car/engine vulnerabilities to be exploited when a problem rears its ugly head.

Now, back to my saga! Early in my career, to get really familiar with my assigned parts as well as with the overall engine while running in our test facility, I routinely entered the test cell to check



Fig. 2 Jack and Norbert Singer at the recent Zone 1 tech tactics session.

for air/oil leaks and listen for telltale noises. I noticed that compressed air was consistently leaking from the compressor casing flanges thereby losing valuable performance. A flange stress analysis revealed that due to high bolt and flange stresses, we couldn't solve the problem by increasing torque on the flange bolts. Another solution was needed, so I designed a durable sheet metal seal along the length of the flange, so as the flange spread a little the pressure of the leaking air would deflect the sheet metal to create a seal and prevent the leak.

Another problem I encountered was a consistent failure of the main rotor thrust bearing allowing the gas generator rotor to shift causing a failure. But oddly, these failures were only occurring on engines built by our British licensee, de Havilland. My boss told me to figure out this anomaly and fix it. The thrust bearing that was failing could not be increased in size to handle the higher loads that the Brits' engines were experiencing. So test data was obtained on the pressures in the "balance piston" area of the compressor that controlled the load on the thrust bearing. This permitted some thrust balance analysis which was shared with the Brits. When failures continued I was told to fly to London to fix the problem. I was overjoyed at the opportunity to help them and make my first trip to Europe and visit relatives in London for the first time.

To shorten the story, de Havilland gave me the royal treatment - put me up at a posh hotel (with full English breakfast) and had me picked up by a chauffeured limousine. Fortunately, my test data and analysis done prior to the trip helped us quickly identify and fix the problem. The culprit was failure to accurately machine the teeth of the balance piston labyrinth seal (see Figure 1) which allowed high pressure air to leak into the balance piston area, causing excessive bearing load. The failures stopped as soon as parts were made per drawing.

Another memorable failure, which was intolerable, because it was a safety issue, was that of occasional factory test engine fuel manifold cracking, which would leak fuel resulting in a fire. Just as Porsche does with its race engines and cars, after prolonged operation, we disassemble the engine and carefully inspect all parts for wear, cracks and leaks. We tracked these parts by applying strain gauges to the manifold in the vicinity of the cracks. We found high thermal differentials and vibratory stresses. Despite the fact that we had no reports of failures of the critical fuel manifold in flight, I felt we should replace the original design with a simple fix we developed, namely: stop welding the tubes to its mounting plate and instead allow the tubes to pass through the mounting plates into the combustion chamber and in effect allow the tubes to float and reduce stresses. "O" rings were used to prevent leakage of air around

the floating tubes. This eliminated the vibratory stresses and the failures in our factory engines.

The real drama in this story is yet to appear. Gerhard Neumann, the German expatriate from Hitler's Germany (he published his odyssey, *Herman the German* covering escape from Germany, becoming chief mechanic to Gen. Chennault's Flying Tigers in China, driving a Jeep solo, (after the war) from China to Germany along the Silk Road), and eventually became V.P. in charge of GE's Aircraft Engine Division where I worked in Lynn, Mass.

Now being a thorough German (he graduated from the Gymnasium where the lessons of his disciplined apprenticeship led him to institute a practice called "Skip-Level Breakfast Meetings" -- really thinly disguised Inquisition questioning sessions). By this time I had been promoted to a design supervisory position which warranted regular attendance at these meetings that were partly intended for Neumann to hear the unvarnished truth about the state of the health of the engine from engineers closer to problems/fixes than from higher level managers more removed from the "skunk works" and sometimes too concerned with cost control, at the expense of engine reliability.

So when it came my turn, I cited my fuel manifold failure concern, stating that this serious failure could show up in the field as engines build up many hours of operation. My recommendation was for manufacturing to make parts per the new design and have them ready for a field retrofit if needed. I had previously completed the prerequisite qualification tests and got this redesign approved by the military.

My boss who was at the meeting agreed in principle and opted to alert the shop to be ready to release the new design, but not to "pull the trigger" yet. As it turned out, we had an in-flight failure the following week, but fortunately no fire ensued and we quickly retrofitted engines in the field with the failure proof design.

Events similar to the above led to Neumann promoting me to a midlevel management position having responsibility for division-wide engineering support. Here my career shifted from a fast moving design engineer on the leading edge of technology, to a position with division-wide responsibility over coast-to-coast testing facilities. As you can see from Figure 3, this promotion transformed me from a shirt-sleeves engineer to a "suit" in the corner office (which noticeably matured me). It was at

this point in my career that I learned from a former test supervisor of mine that he just started a special assignment to install a T-58 turbo shaft engine on an Indy race car. He invited me to Indianapolis Speedway to inspect the installation.

Referring to the photograph at the beginning of this article, you will recognize the T-58 engine installed in the Indy car from the engine cross-section in Figure 1. The obvious visual differences are: (1) the exhaust section that is pointing down in Figure 1 is pointing up in the car (to help with down force). Also, the prominent gearbox pointing up in Figure 1 was replaced by an automotive type of transmission pointing down, yet clearing the pavement sufficiently to avoid contact under G loads.

Also the normal control schedule would have to be changed to be compatible with the needs of a driver to control approximately 1000 HP packed into about a 267-lb engine.

Obviously the mounting points have to be strong enough to counter the high torque produced by the engine. The other important consideration is the cooling of the enclosed space between the engine and body (fuselage) of the car. Another concern would be to configure (in case of a crash or engine failure), a combination firewall and structural failure barrier to protect the driver.

Unfortunately, due to my transfer to Germany, I lost track of the details of the final prep and setup of the car, and how they blended the inherent torque versus speed characteristics of the gas turbine engine with that required by a race car. The special transmission must have been an important factor. I also never got the details of the problems that led to the reported DNF.

The fortunate part of my transfer to Europe to support NATO in the Cold War (in 1966) was that the experience was better than I hoped for, with the "icing on the cake" being buying a Porsche 912 that I drove all over Europe skiing, visiting Neuburgring and experiencing the 1967 Le Mans when Dan Gurney won in a Ford (an all-American first and yet to be repeated LeMans victory).

Now to wind up this tour de force of career reminiscences, woven into gas turbines in cars, David Churcher, who has been hoping for an eventual gas turbine dedicated to cars in the future, has provided me with the perfect "pivot" about which to formulate my opinion on whether David's dream of the eventual

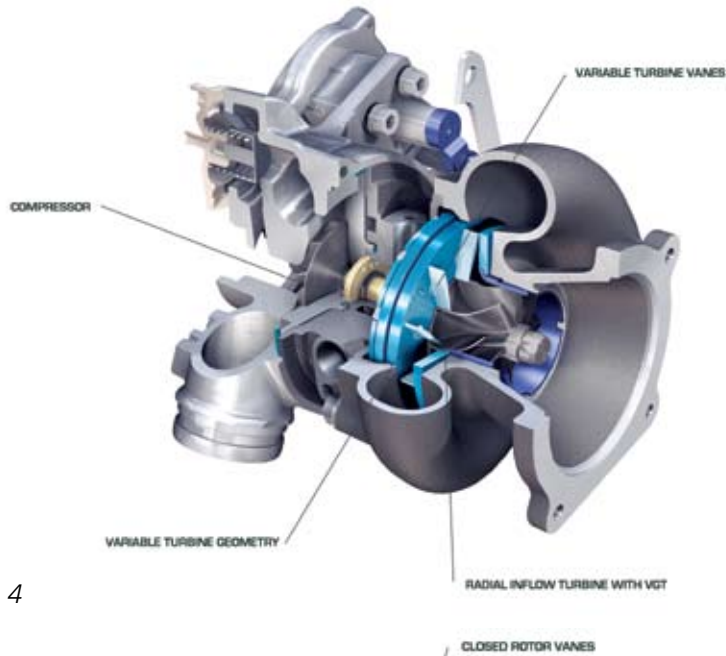


Fig. 4

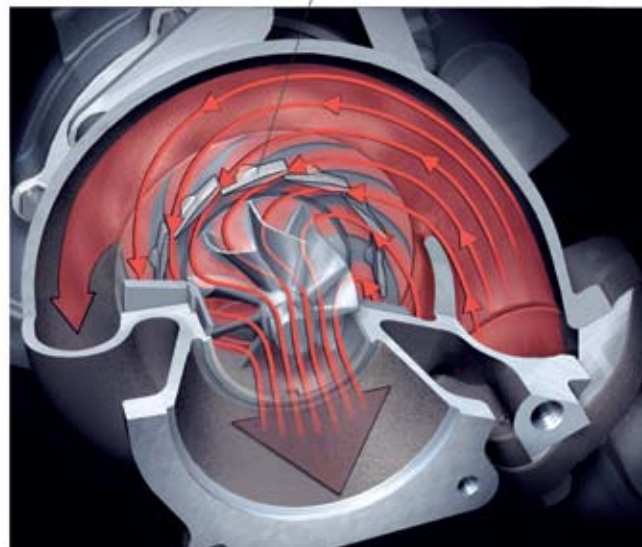


Fig. 5



Fig. 6

Fig. 3 The gentleman in the suit and corner office is Jack. This photograph was taken in 1966 soon after Jack was promoted to a management position following his work developing a turbine and solving performance problems.



burial of the “wuppetta wuppetta” sound of the conventional recip and the emergence of the “hmmm” sound of the smooth, virtually vibrationless turbo machinery of the gas turbine engine.

My judgment is, the best we can hope for is a limited but important transfer of technology and advanced materials and processes from the ongoing research and development of advanced A/C engines which only the U.S. government is (was) rich enough to afford.

A very timely example of this technology transfer is the new Porsche 911 Turbo design which features a variable turbine geometry turbo (VTG) supercharger which markedly improves performance (torque) as well as efficiency (thermodynamic) by fully “exploiting” every bit of energy (BTU’s) in the exhaust gases.

The device is so new, that this may be one of the first descriptions and explanations of its workings, outside of Porsche’s press releases and shop manuals.

First refer to Figure 4 - New Exhaust Gas Turbocharger and VTG, because this is basically the same (excluding the variable turbine) device that GE’s Sanford Moss invented to turbocharge reciprocating A/C engines mentioned at the beginning of this article. If you look carefully you can see the radial inflow turbine (on right side) which is supplied with the Porsche engine exhaust gases that turns the turbine which simultaneously rotates the centrifugal

compressor rotor (visible on the left side of rotor shaft).

The big difference between standard turbos and the VTG is that Porsche has added variable geometry to the rotor vanes to open or close them as directed by the Motronic control to match the flow desired by the engine for optimum combustion efficiency from start-up to max power. In effect one turbo (with VTG) replaces the small and large turbos some engines have.

Refer to Figure 5 to see the VTG in the closed position which is set for starting, and see Figure 6 for the VTG in the open position desired for full power to take full advantage of the max exhaust gas flow absorbing max energy to increase torque and efficiency.

On this point on transfer of technology, let’s recall my alluding to “Herman the German” -- Gerhard Neumann -- earlier in the article. Well, guess what, regarding variable geometry he made his reputation in the A/C gas turbine industry by championing that design as the best way to modulate high pressure ratio compressors over a wide operating range. All GE A/C engines (and maybe others) feature variable compressor vanes and this is shown in Figure 1, if you look carefully.

Some other transfers of technology and devices from A/C and gas turbine powered engines to benefit cars in general but

especially high performance race cars include: (1) light-weight high-strength both for high and low temperature applications like carbon fiber structures, boron steel for reinforcing Porsche race cars, (2) special aero design of ducts to bring cooling air to brakes and to the engine compartment and (3) of course all kinds of air foils to increase down force and now split diffusers in Formula 1.

In closing, let me say in answer to David Churcher’s hope for a gas turbine powered car in the future, though it’s possible on an experimental scale, it’s not practical for production because of the high price it would require due to: (1) expensive, exotic high temperature materials and manufacturing processes and (2) internal aerodynamic and related fluid flow devices do not “scale well” due to the boundary-layers of the flowing fluid approaching the size of the passages they flow through. Therefore the efficiency of such engines would suffer.

So let me close this lengthy tome that my good friend (and fellow engineer) thrust upon me, when he found out I played with gas turbines and say a fond farewell (again) to my mentor and benefactor, Gerhard Neumann. Auf Wiedersehen!

SPRING RALLY 2009 ...

A Picture Is Worth A Thousand Words

Judy Hendrickson

Six photographs of clues per page, 10 pages, that's about 60,000 words.



Rallies are always a fun event, yes? Scenic byways, cool cars, perplexing clues, but if you aren't a couple it can be challenging to find a driver or navigator as the case may be. However, that is seldom a problem in North Country. All you have to do is let it be known you're looking for a co-entrant and one will appear. In this case my call for a partner delivered our President, Ivy Leonard. Now I had never partnered with Ivy before in an event, but I had never failed to have a good time when she was present and besides, this was just for fun and giggles. I've long since ceased to be stressed about rallies – either they come together or just sit back and enjoy the drive.

Our first challenge was to figure out how one would reunite with whomever's car got left behind at the start. That was easily settled when Matt offered that either he or Jay as organizers could drive the car left at the start to the finish.

The days leading up to the rally were spent watching the weather forecast trying to decide which Porsche I would take. That was soon settled as Jelly Bean (95 993) is down for needed maintenance – her dual distributor belts need changing (14 years old) and her wing is making a terrible noise on retraction and there were showers in

Friday night's forecast for the weekend (SIX's – the 71 914/6 – paint does not like any sort of water anymore).

Sabrina and I arrived at the Alton Bay McDonald's a few minutes before 9AM to find a parking lot full of Porsches. Ivy was there in her 944 Turbo (TURBOMA) and a number of new faces. Sabrina quickly made new friends and Ivy opted to ride and navigate in the 65 356SC Cab (DERTUB). As Ivy had to leave the festivities by 3PM for an event back down the coast we were given the option to leave early. However, the bathroom line precluded too early a departure.

The good news was that this was a photo rally – find the pictured sign and fill in the missing word(s). No turn of the tongue gimmick questions to find the answers to. The bad news was there are 58 pictures in random order covering 10 pages! The 356 dash is not big enough to post them all even if I had remembered to bring the masking tape. Oh well, let's look thru them, try to identify where some of them are – thinking we can either look for them early or late as the case may be knowing that we would be ending the rally in Lincoln. We also tried to pick a key word to associate with each sign to try to help stimulate recognition as we went along. We decided early on that we had to try

to see every sign along the way and go s-l-o-w and pull over as soon as we saw one that was on the pages to get it down on paper to preclude missing another one in the same area.

Of course the problem with this strategy is that there is not always a good place to pull over right away AND we may irritate those behind us with our slow pace. Keeping an eye to the rear and pulling over to let non-rally cars pass is a good thing to remember.

The most stressful times were when we were going through towns, especially at the start. Bam! Bam! Bam! Multiples signs encountered in short distances of one another and traffic to contend with. Stress was greatest at the start, but we soon settled into a rhythm that worked for both of us. I certainly benefited from having had the cataract surgery a month back. I wouldn't have wanted to do this beforehand. Our only major foul up with the directions was Roberts Cove Road off of Rt 28. As I passed by it I remembered thinking we have used that loop many a time in past rallies, then I realized I had missed the instruction as I passed the second Roberts Cove sign. Nothing to do but turn back and retrace our steps and recalculate what the new mileage clues would be. We encountered a number



Ed does the "Inspector Two Step" while Ivy greets Jim.
All smiles and away. Photographs on pages 18 and 19
by David Churcher.



of Porsches on Rt 28 as we headed back for the start of the Roberts Cove loop and a few more heading in the opposite direction on Roberts Cove. We found a number of the signs on that loop, some of which might not have been too visible if approached from the wrong direction.

Our route took us over Rts 28, 109, 113, 25, 16, 112 and I-93. We traveled the northern route around Winnepesaukee and had many breathtaking views on an overcast but otherwise nice cool day.

Time and miles accumulated. I frequently asked how many more signs left and noted, Geesh! There's still 60 miles to go! At about three hours in I start looking for a place along the way where we could stop for a rest. Nothing really works out so when I see that we will take Rt 112 (Kancamagus Highway) I decide we will continue on into Conway for the necessary stop as there are no stops for nearly 30+ miles along the Kanc! Since the turn at Rt 112 is a known spot mileage corrections can easily be made. Several of the Porsches following us thought we

were crazy when we went straight, but only David Churcher who had hooked up with us early on in the rally for photo ops followed us into Conway. He soon figured out what we were up to and was grateful as well for the rest stop and a chance for a snack. Thank you Irving gas station.

The Kanc provided an enjoyable "Free Zone" drive where DerTub was able to stretch her legs a bit. That is until I remembered Sabrina was in the back being slid from one side to the other as we rounded the curves. DERTUB got many thumbs-up from the bicyclers heading in the opposite direction. Finally, we were at the end location. At first I thought no one else was there as I turned in at the first entry to the parking lot, but then saw Ed Broadhead in the middle of the parking lot at the far end waving us down. Turns out we were the last to arrive until we realized two couples were still missing long after we went in for a late lunch. How did we get behind everyone else? We weren't in Conway that long! We sat in the car a bit to try to make intelligent guesses as the signs we had failed to find – three.

After giving our drink and food orders Matt led the group in self-scoring the results. We were doing pretty well. We were correct on all signs we had found. Our guesses on those we had not found were wrong, but one of them no one had found and was thrown out as the Rallymaster didn't remember the missing words either. At the end we had two out of 57 wrong, were 8 miles over the rally mileage and "won" the "prize" – writing this article.

All in all it was a very fun day. Ivy and I had a great time searching for signs and the 356 was the perfect vehicle for the winter-roughened roads up north. While some headed home, others opted to stay on at the Indian Head Resort for the night and Matt, Xana and I headed for my condo down the road in Campton rejoining the Indian Head group for dinner at the resort later that evening. Another MOST EXCELLENT ADVENTURE WITH MATT AND JAY.

... more photographs from the rally on page 20



Counter clockwise from top left ... someone going the wrong way? DERTUB strikes a pose in a period gas station. Photographs by David Churcher.

Flying up the "Kanc" ... photo by Matt Romanowski.

The winners and the organizers are all smiles. And a mini Porsche parade at Indian head. Above two photographs by Maria Stan.

DE AT NHMS MAY 18, 19 & 20

The following three pages are a collage of photographs by David Churcher from our season opener at NHMS. Read the enthusiastic comments on the event from Paul Frucci on page 12.







The spring rally was a great ride and finished at the Indian Head Resort in Lincoln, NH. Before lunch the attendees assembled for a group photo by Maria Stan. But ... hey ... that's Maria on the far right. Ah ... this was the shot Rob Weiner made with Maria's camera.



Photo by Rob Weiner





Joe Kraetsch

Autocross # 1 is in the books. We arrived early to the airfield in Devens and we were greeted by swarms of black flies and gnats. Shortly, however, a cold breeze picked up and sent them packing. The day was a bit chilly in the morning, but hey, it wasn't raining! By the afternoon session, the sun was peeking out and it turned into a nice day.

This was our first event with our new wireless timing equipment and we had a bit of a scare when we could not get a signal from the finish line unit. After checking several possible causes, we fixed the problem by elevating the base unit to the timing table. Once we solved that, the equipment worked flawlessly all day. We also had a lot of on-site registrations to type into the computer. Both of these factors contributed to a very late start. If you are coming to an autocross, *please* pre-register online. It helps us get the event off quicker and saves you some money. In spite of the late start, we decided to go for four morning runs. After both heats finished their morning runs, it was clear that everything was running smoothly so we were able to get another four runs in the afternoon.

Chris Darminio and John Mac Donald set a fun and challenging course. It was a great course—easy to follow yet difficult to master. Everyone from novices to experts loved the course. Charles Stromeyer said it best: "...everything worked very well, the course was simply awesome!" Thank you, Chris and John for a job well done. Thanks to all my staff and to all the participants for making the event run so smoothly and efficiently!



May 23, 2009 .. the first Autocross driver's meeting for the season.

Photograph by Judy Hendrickson

**AUTOCROSS #1
RESULTS ARE ON
PAGE 37**

... and the first awards ceremony for the season.

Photograph by
Judy Hendrickson



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President

...continued from page 6

It really is true...truer than most 'outside' can possibly understand. It really, really, is not about the cars...it is *all* about the people!!

Thank you to all my friends!!!



Editor

...continued from page 7

hours have lapsed. Some people keep their accounts open all day, bouncing on whenever they get a free moment. Others start playing various games which either involve asking your friends for help or requiring you to create and manage something, such as a farm. If you don't get online every day and "tend" it, your farm will fail. When you first log on, you go to your home page which shows a couple days' worth of messages posted by anyone who is in your circle of friends. That means you can see who has been on the computer doing what and also see replies to their posts. At first I was a bit disturbed by reading these posts, I felt like a voyeur peeking into other peoples' business. But eventually I worked it out in my head that if these messages were private, my friends would not have posted them knowing we would all know who was having chicken for dinner and who just came home from their son's winning baseball game.

The best part about Facebook is reminiscing with friends, some I haven't seen in almost 20 years. We recall times when we skipped pep rallies, winced at photos of us during phys ed (gym pants will NEVER be fashionable). We joke about our 80s hair styles and dress fashions, our school dances and class field trips. And of course we share those "inside jokes" about things we did after school or during summer vacation. Some of my friends are so bold as to post early photos of themselves, from ages newborn to preteens. It's funny to see someone you've only known from high school riding a Big Wheel and sitting on Santa's lap! A psychiatrist would have a field day explaining what kind of person posts certain types of photos on his/her Facebook account.

For all the conveniences and entertainment Facebook offers, there's no substitute for true life socializing. My friends and I have those memories because we lived them, we didn't have cell phones or internet for us to sit home all day or night chatting over airwaves. In fact, if we did want to get together on a Saturday night one of us had to call each friend, one at a time to set up the event. And if one of them called while I was on the phone with another they'd get a busy signal! Facebook should be a means to get several friends together and keep them in close contact. But in order to keep the chat interesting and to create fond memories one should plan to meet up with those friends in the real world...and don't forget to post those photos after for those of us who can't be there!



MEMBERSHIP

...continued from page 9

5 Years:

Jane Bennett
Maynard, MA – 1976 911S

Paul D. Bowler
Dover, NH – 1968 911S

John C. Conlon
Stacey Conlon
Wilton, NH – 1986 911

Daryl Coplan
Warner, NH – 1970 911

Antonio Iorfino
Chocorua, NH – 2003 911T

Berthold Langer
Coatesville, PA – 1999 Boxster

Imants Saksons
Stouffville, Ontario – 2001 Boxster S

Jonathan S. Shafmaster
Amy P. Shafmaster
Portsmouth, NH – 2002 911

10 Years:

Douglas McIninch
Nancy McIninch
Bedford, NH – 1986 944T

20 Years:

Natalie A. Donnell



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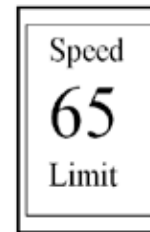


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FROM THE FAR SIDE OF



A Perpetual Student's Guide to Driver's Ed Instructors

Gary M. Levine

It would be preaching to the choir to extol the virtues of attending PCA Driver Education programs. Many others have testified that the skills learned at DE have prevented countless accidents and allowed one to deal with the limits of adhesion in foul weather. The success of any DE program depends on the skills, enthusiasm and the bravery of our instructors. I owe these dedicated souls my thanks for having made me a better, safer driver. Although I never will achieve their skill level, my aim is to maintain my driving skills and HAVE SERIOUS FUN. The hours I've spent on the track have, as Mr. Spock would say "melded me into organo-mechanical synergy" with my car.

I expect that a very high percentage of PCA members have given DE a try. However, for those of you that have never done so, a brief, reassuring guide to DE instructors is offered. Since joining PCA, I have frequented our club's programs at NHMS. Prior to joining North Country PCA, I attended (and still do) BMW-CCA and SCDA driver schools. I have found much similarity and few differences between the programs run by the Stuggarters and Muncheners.

As a part time educator, mainly involved in small group and individual teaching, I have been struck by the diversity of personalities and teaching styles of our instructors. I believe I have encountered a varied but representative pool of instructors over the past 25 years. Thanks to more extensive instructor selection and training, some of the extreme variability in the quality of instructors has diminished over the years. A majority of instructors are PCA, SCCA or BMW-CCA members who instruct at our schools but also may be found at for profit schools such as those run by the Sport Car Driver Association and The Car Guys. With the advent of club racing, the desire for free track time has enlarged the pool of people available to instruct.

There are several distinct species of instructors. I will briefly outline the taxonomy of the most frequently encountered:

Der Ringmeister. Easy to spot, he approaches your car in complete body armor- a patched and soiled Nomex suit with tire tracks running across the back of it, topped with a Darth Vader helmet. He's really come to our driver's school to get in some track time in his 911 RS for next week's SCCA Regionals. He is underwhelmed by your Zymoled, street stock pride and joy. He looks over the car, checking the tires, "What, you're not running R rated tires?" In an experienced group? He's annoyed not finding a five-point harness. "You ought to buy yourself a set of Stroth's for your next birthday." *Der Ringmeister* insists on first driving a few laps even after you meekly inform him that you've driven at the track many times before but, he wants to show you the line. HIS LINE. The ONLY line. The 911 racing line. Not necessarily the line you are accustomed to driving. SAFELY. Now, it's your turn to drive. As you circulate the track, *Der Ringmeister* is the strong, silent type, making a few grunting noises here and there. Wondering how you're doing, you ask for some feedback. Silence. Maybe the intercom is broken? Not until you pull into the pits does he start to unload. And unload. Your sit in the car for 20 minutes on the receiving end of a running technical commentary with hand gestures as to how he approaches each turn. You cannot understand what he's saying. You need to pee. Finally, as he gets out of the car, he offers to sign you off!

Der Quasselstrippe: Luckily, the Chatterbox is a rare bird. I've encountered only one flagrant member of the species, but some instructors can exhibit some of this creature's strange behavior. As soon as he straps himself into the car, the endless commentary begins. It takes him so long to go through his extensive automotive, personal, past and family history, that, by the time you're out on the track, you have been lapped twice by your run group. He is repetitive and redundant: a non-stop talker, kibitzer and storyteller. As we pass certain spots on the track, I hear how he "went off into the weeds" trying to pass offline in his Lotus Elise racecar. He's never content to wait and see if you can take

the line, preferring to parrot instructions on brake points, turn-ins and tracking out at each corner. He continually says "Relax! Take a deep breath! Inhale! Exhale!" Hey, I didn't come to DE for Lamaze lessons. Little does he know, it's impossible to concentrate, let alone relax with him in the car. He also talks with his hands...on the steering wheel. "You're a fraction of a second early. You don't mind if I guide the wheel do you?" "Relax! Take a deep breath! Inhale! Exhale!" He's leaning over into my space, blocking a corner of the rear view mirror so that I can't see the BMW M3 Lightweight, waiting impatiently for a pass signal, because I'm trying to "Relax! Take a deep breath! Inhale! Exhale!" By the end of the run, I'm ready to push the ejection seat button.

Der Lowenjungens subspecies *megacajones:* The Young Lion has the potential to teach you. Maybe nothing you'll want to learn. He's been moving fast since he got his first ten-speed bike. Drove go-carts at twelve. Taught himself how to drive a stick at fifteen on the family Honda when the "rents" were away on vacation. He bought a clapped out 914 and joined PCA at twenty. He's got a reputation as a fast autocrosser and club racer. *Der Lowenjungens*, shuns Nomex for overalls so that he can cross dress as a grease monkey. He's spent most of the first instructor's run performing an emergency brake job on his club racer after losing his brakes. As he wipes a puree of brake fluid and brake dust on his chest and gets comfy in your car's beige leather seat, you realize that he's younger than your kids. And you hardly ever listen to them! During the warm up lap he rehashes his recent love life, the recent bachelor party he attended in Las Vegas and a list of modifications he's made to his current car. He thinks your driving is okay for a member of the near elderly class. But, WAY TOO SLOW. "Let's kick ass, man...next lap pass that 911 Turbo" off the line on the short straight. So what if you are 200 horsepower down? Before each fast corner, he urges you to downshift into second, run into the rev limiter, instead of staying in third, in order

continued on page 36 ...

TARGA TASMANIA 2009

David Churcher



If you leave NH heading South and West and go around the world as far as you can before coming back on the other side you will find yourself on the shore of The Great Southern Land. From there it is just 200KM to the northern shore of Tasmania.

Tasmania? That's in Africa, right? No, that's Tanzania. What language do they speak in Tasmania? English...well, sort of. What is it famous for? It was famous as an English penal settlement where they dumped their worst and did awful things to them (and the natives). Later it was famous for apples but it is not anymore. The apple business died with the Common Market years ago. So now? It is famous for its wine, produce, beauty, friendly people, olive oil...and the Targa Tasmania.

"Targa" ... it has a sound of Europe and a hint of speed. Too right it does!

Years ago Tasmania had a wonderful European style road course called

Longford. The world's best came there to race. Brabham, Hill, Surtees ... the best. But Longford did not last. And then...and then...along came a group of enthusiastic Tasmanians to plan a tarmac rally around the island and with the plan to bring back the world's best. It worked. The Targa Tasmania is now a hot item and is the basis for similar races in Canada and Norway.

So who goes to Targa Tasmania and what has all this to do with Porsche? Unfortunately I have not been to Targa Tasmania ... but I will go, one day. Porsche send a car every year from the museum. Klaus Bishoff goes down with a 550, or an RSK, and this year with the lovely 1963 Abarth 356B 1600 GS Carrera GTL. See the photographs (courtesy of Targa Tasmania) attached to this article. I have biased the selection to Porsche, of course, but if you are really a rally nut do a Google search on Targa Tasmania and see the wonderful selection racing there.

Targa ... is that like Targa Florio? Or Monte Carlo? A bit. Perhaps in more scenic

surroundings. How do we see more?

Do a Google search. Some of the videos you can pick up on are incredible. One video I found was made by an in-car camera during the 2006 event ... an MR2 hurtling through what I think is an area we call The Sidling. You might have a hard time understanding the English the Tasmanians use. The repartee between driver and navigator is a bit difficult. And there are no subtitles. If you have been hanging out with me you might have a slight advantage ... but not much ... I have been Americanised. ☺

My Internet browsing also turned up a movie: LOVE THE BEAST. It is an Australian movie about a young man and his car. A great story. The movie is available on DVD from Netflix. Highly recommended. You can see the trailer (preview) on the Web at:

<http://www.apple.com/trailers/independent/lovethebeast>

The Targa Tasmania winner this year was Tony Quinn from Queensland driving a Nissan GTR. Second, six minutes back, was Jason White with a Lamborghini. The previous day's leader Kevin Weeks crashed his Lambo on the final day. The classic category was won by Rex Broadbent in his 1974 Porsche 911 RS. Second was Bill Pye in a similar Porsche.

Jim Richards crashed his Porsche GT2. He has won this race eight times in its 16 year history This crash does not mean Jim has lost his skills ... it means a faster pace of the race.



Page 32: Klaus Bishof drives the Abarth Porsche somewhere in Tasmania.

Page 33: A map of Tasmania. The island is about 200 Km wide and 300 Km long.

Jim Richards is an eight times winner but this year he crashed.

Rex Broadbent ... won the Classic section this year.

Bill Pye .. second in the Classic section.

All photographs from Targa Tasmania organizers.





THE PORSCHE MUSEUM

IT'S NOT ALL ABOUT THE CARS

It would seem *Northlander* is perhaps the last magazine to publish photographs of the recently opened Porsche Museum. We did publish some Porsche supplied photographs of the early construction but the opened museum seems already to have enough coverage in the press. However, as I [David] browsed through the press site for Porsche I found some rather stunning photographs that, I at least, had not seen before.

Some of these photographs really emphasize the design style of the architects and that of course made me want to learn more about them. Their designs are stunning ... the Porsche Museum is too but it is only one of many designs. Delugan-Meissl Associated Architects and Porsche provide a visual feast.

Enjoy the photographs and for more on the architects you can download a PDF brochure with their story and pictures of other accomplishments at :

<http://www.baunetz.de/talk/crystal/pdf/en/talk13.pdf>



13

Delugan Meissl Associated
Architects

Photographs from Presse Porsche.

*The brochure at right is a PDF you can
download and enjoy ... see link on page
34.*

Text: Axel Simon Photos: Hertha Hornauer, Margeritha Spluttini

Far Side of 65

...continued from page 31

to gain every last millisecond. Having been there, done that, you know that any time gained in the lower gear is lost during the extra gear change. Once you accept the reality that the generational mismatch is too big to close, you drive your line, urge *Der Jungen* to practice safe sex and see what the next run will bring.

Fraulein Hotfootus latebrakeus. There are notably few woman involved in car clubs. But those that are should be taken seriously. This mild mannered woman is one of the boys. She shares some traits with *Der Ringmeister*, but is warm and friendly. She learned to fly helicopters in the Army. Served in Iraq. She is a direct descendent of a founding member of PCA. Had her diapers changed in the back of a 356 at her first Porsche Parade. She is very competitive in a 944S club racer that she built with her dad. They own a garage dedicated to imports. You are running in the Blue group, hoping to be signed off so that you can go out and "play in traffic" and maybe advance into the Black group some day soon. After all, you've been


signed off at the last five consecutive PCA and BMW schools. She tells you to drive your line for the first few laps then begins to instruct. She's going to calmly "push thy envelope." Thinking your turn into Turn 2 was a bit late, she responds "You're a bit early." Maybe you entered Turn 3 too fast, "Try to brake later." Like into the tire wall? Turn 6 you know you've got down perfectly. She replies, "You're middle of the track! You can get at least another three inches closer to the cone." After twenty minutes, you're sweating despite the October chill, longing to see the checkered flag. You have learned a faster way around the track, admittedly driving better than you've done before. Pulling into the pits, she'll sign you off. You thank her, but, remain unsure that you can duplicate your performance without her. *Fr. Hotfootus latebrakeus* asks to be dropped off at Control so that she can confer with her father, the Chief Instructor.

Der Alte: The Old Smoothie. My favorite type. Thankfully, the most abundant DE instructor species. He's been a PCA member forever. Has a low 4-digit membership number. He's been a club officer and done many seasons of SCCA

racing until the cost/fun ratio see-sawed the wrong way. He saunters up to the car in well-worn khakis, wearing a 2003 Porsche Parade Instructor's shirt, and a floppy Tilley hat with his helmet under his arm. *Der Alte* spends a few minutes asking YOU about your experience. Like a gifted teacher, he asks you what your expectations and goals are for the DE school. As you do your initial laps, it's evident he can communicate clearly. By conscious intent or by genetic predisposition, he's learned one of the most important education principles -- the feedback sandwich: positive reinforcement-constructive criticism-positive closure. You can expect *Der Alte* to say, "You're doing well, Let's see if we can further improve your smoothness... Try to squeeze on the brakes a little earlier and get back on the gas a little sooner... You've got it! Good lap!"

You find yourself more relaxed and confident. *Der Alte* helps keep an eye on the flag stations and traffic. "Do you see the Corvette closing on you?" You do. "Did you see the dust rising off in the distance from Turn 4, where a car just went off?" You do. You lift a bit anticipating the yellow flag. "Good track

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NCR Autocross #1—May 23, 2009

Novice (PAX INDEXED CLASS)				AM	PM	Total	PAX
1	P2	Jim Shepard	1984 944	86.414	85.076	171.49	141.13
2	S7	Anne Procyk	2003 Boxster	90.303	86.326	176.62	144.12
3	S7	Andrew Arkway	2000 Boxster S	90.579	88.567	179.14	146.18
4	I4	Bob Bradley	1987 911	87.171	85.973	173.14	148.55
5	P7	Michael Etzel	1998 993 C4 Cab	94.519	89.308	183.82	154.96
6	S9	Eric Liu	2006 Carrera S	95.329	94.167	189.49	158.79
7	P7	Barb Jacques	2001 Boxster	97.910	93.762	191.67	161.57
8	P4	Ivy Leonard	1988 944 Turbo	106.12	98.714	204.84	171.04
9	P7	Evan Tong	1996 911 Cabriolet	109.73	104.20	213.94	180.35

Strict Stock (PAX INDEXED CLASS)							
1	S6	Michael Tou	1988 911 carrera	81.305	80.475	161.78	130.71
2	S7	John T. Mac	2006 Boxster	81.164	80.431	161.59	131.86
3	S7	Jeremy Mazzariello	2007 Cayman	82.448	80.395	162.84	132.87
4	S7	Steve Ross	2000 Boxster	84.357	83.559	167.91	137.01
5	S7	Ernest Grasso	2001 Boxster S	84.936	83.579	168.51	137.50
6	S8	Michael Orsini	2008 Cayman	83.783	83.150	166.93	138.22
7	S8	Apolinaras	2007 Cayman S	84.110	82.829	166.93	138.22
8	S6	Dick Demaine	1988 911	85.039	86.713	171.75	138.77
9	S8	Christopher Fahy	1999 911	85.858	84.701	170.55	141.22
1	S7	Mary Chevalier	2006 Boxster	88.767	87.121	175.88	143.52
1	S8	Glenn Champagne	1999 996	89.275	84.363	173.63	143.77
1	S9	David Grant	2007 GT3	86.712	87.011	173.72	145.57
1	S2	Miriam Dunster	1987 944	90.590	92.454	183.04	145.70
1	S7	Suzy Ascher	2000 Boxster	92.404	89.959	182.36	148.80
1	S7	Keith wescovich	2003 Boxster	96.793	88.474	185.26	151.17

Production 2							
1		David Case	1987 944	82.281	81.279	163.56	134.60
2		Joe Kraetsch	1989 944	82.734	82.900	165.63	136.31
3		Lisa Roche	1989 944	85.573	84.053	169.62	139.60
4		Bill Aubin	1984 944	93.341	89.646	182.98	150.59

Production 3							
1		Mark Schroerr	1974 914	78.529	78.071	156.60	130.76
2		Chris Darnio	1976 914	79.289	79.216	158.50	132.35
3		Sigrid Schroerr	1974 914	80.367	79.117	159.48	133.16

Production 4							
1		Georges Rouhart	1993 968	78.975	79.012	157.98	131.91
2		Tom Tate	1972 911	81.121	79.252	160.37	133.91

3		Neil Halbert	1990 944S2	80.559	79.954	160.51	134.02
4		David Beringson	1987 944 turbo	83.700	81.217	164.91	137.70
5		Jack A. Saunders	1990 944S2	103.46	102.25	205.71	171.77

Production 6							
1		Robert Canter	1984 Carrera	81.897	82.191	164.08	137.01
2		Chris Ryan	1984 911 Carrera	84.651	81.365	166.01	138.62
3		Jeff Johnson	1987 911 Carrera	85.735	85.868	171.60	143.28
4		Steven James	1988 911	87.737	87.520	175.25	146.33
5		Hank Cowles	1993 911	89.927	85.762	175.68	146.70

Production 7							
1		Chris Jacques	2001 Boxster	76.556	75.393	151.94	128.09
2		Oliver Lucier	1998 Boxster	76.129	76.177	152.30	128.39
3		Gregory Osche	2001 Boxster S	78.149	77.753	155.90	131.42

Production 8							
1		Brian Cooner	1999 911	84.751	79.937	164.68	140.97

Production 9							
1		Susan Kelley	2007 997 C2S	84.176	82.280	166.45	144.15

Improved (PAX INDEXED CLASS)							
1	I5	Stephen Lefebvre	2007 GT3 RS	75.445	74.144	149.58	128.94
2	I3	Mark Skala	1970 914-6	76.090	75.286	151.37	129.12
3	I6	Charles Stromeyer	1997 993 turbo	79.139	77.399	156.53	135.56
4	I5	Michael Bete	2007 Cayman S	84.765	84.422	169.18	145.83
5	I5	David Tynan	2007 Cayman S	90.315	84.667	174.98	150.83
6	I2	Edward Ramsey	1984 944	DNF	93.748	DNF	-
7	I3	Steve Smith	1983 944	DNF	85.680	DNF	-

Modified (PAX INDEXED CLASS)							
1	M4	Ron Mann	1970 911	76.750	76.282	153.03	135.58
2	M5	Kenny Conway	1992 964 carrera	75.589	76.411	152.00	135.73
3	M5	Colin Mazzola	1992 964 Cup	76.422	77.387	153.80	137.35
4	M3	Judy Hendrickson	1973 914-6	86.832	86.288	173.12	152.17

Top Times Of Day	Time	Driver
Raw time	149.589	Stephen Lefebvre
Pax	128.093	Chris Jacques

Looking Back

...continued from page 11

1999: May 2, Spring Rally by Steve Dazet and Steve Gratton. Destination: Woodstock Inn and Brewery in North Woodstock. This was a Q & A Gimmick Rally with TSD aspects. Jim and Deb Gratton took the win with Jay and grandmother Barbara (better known as Grammy Gratton), who wrote the article, taking second. As you've figured out Jay was driving by now and his grandmother was his navigator. Grammy Gratton is no stranger to sports car stuff; seems she and her late husband did a lot of hill climbs, DEs, rallies and gymkhanas back in the late 50's. This was a special Gratton rally to be sure with three generations participating.

And great to see Grammy Gratton is still at it well into her 80's at this year's rally as she navigated with son Jim driving.

As for our article reprint this month I have selected then Eitor John Dunkle's column for its always pertinent message about the camaraderie of North Country Region and the encouragement of veteran and new member alike to come out and enjoy their car with like minded folk.

From June 1999, Volume 21, Number 6

INSIDE PERSPECTIVE

JOHN DUNKLE, EDITOR

Well - summer is here! Finally! The birds are singing. The days are warmer and longer. The lawn needs mowing. The house paint needs to be touched up. The hedges need constant trimming. Pollen is falling faster than a Nor'easter can pile snow. Wow, kind of makes you long for winter! But, then - we'd miss the following:

Taking long lazy drives in our cars during the warm evenings with the top down or sunroof open. Breezes that carry the sound of a flat six or "water-cooled-four" - or any motor, for that matter - back into the rich calliope of sounds, sights and smells of summer back into the drivers cockpit.

Without summer, we would miss the fun of the local events from this PCA region: rallies, autocrosses, the yearbook meetings, the DE days, the Annual Parade and other social/driving events that are crammed into our all too short season.

Without summer and the spirit of fellowship found within our events, we'd miss the opportunity to meet our new members as they venture forth and become active in our region and appreciate that a PCA membership is far more than just a monthly newsletter and a cool membership card.

And without this spirit of summer and all the activities within our region, many of us would lose the camaraderie that is the overlay to the entire PCA organization. This extends to each other within the club as well as those who support this region - a diversified group of advertisers and sponsors. So to them - a sincere "Thanks!"

Finally, if you are an NCR Region veteran - ask a new member to come along with you as you go to your next event or NCRouting. Then, sit back and take satisfaction in watching as they discover what this region is all about - as it is all about people, their cars - and the spirit of summer.

Oh yes, and one more personal objective for the summer - trying to get *Northlander* out in a more timely fashion!



Far Side

...continued from page 36

sense," he says.

You learn a lot from this man. Reassuring. Non-threatening. Confidence building. You soon realize that you've been pushing too hard into the corners and within a few laps become smoother and more consistent. Seems you're now passing some of the more powerful cars. The run is over too soon. You'd like to stay out on the track with *Der Alte* all day. As you pull into the pits, he asks you if you'd like to ride with him during the next Instructor's run group in his '78 Targa. You bet. An impressive ride. Lap after lap, he's on the line. In fact, he demonstrates several alternative lines. Perfectly. He points out a few more clues as to where to brake and turn in. You want to get a tissue sample and clone this guy.

I hope this article doesn't offend so badly that I will need to wear a disguise at my next DE. Nor do I want to scare off anyone considering signing up for a DE event. I gratefully acknowledge my debt to those motorheads who fearlessly (or fearfully) volunteer to step into student's cars, skills unknown. I'll continue to attend DE events, welcoming the help and insight provided. There's nothing better (maybe as good, but, not better!) than learning the line, driving your car as it was designed to perform and getting SIGNED OFF. I remain content to be a perpetual student, drive on the track at no more than 8 or 9/10's of my car's potential.



SALE*:** Four stock Boxster wheels with slicks, painted gray/silver. Some small scratches in the paint from storage. No damage to structure. Asking \$500 for the set. Tire sizes Rear, 255/40 ZR 17; Front, 205/50 ZR 1, BF Goodrich G-Force T/A racing slicks, maybe 30% left Brad Marshall 603-496-2038 BRADUSM3@aol.com

SALE*:** 1984 Porsche 928. Spectacular Factory Custom. \$17,500. Pearl white metallic with all burgundy leather interior (seats, doors, dash, roof). Grey Carpeting. Automatic. Near Flawless condition. 1 owner. 44k miles. Serviced by Precision Imports. Never raced, carefully stored, meticulously maintained. Contact David Murray at 603-621-5111.

SALE:** 2007 Mitsubishi Eclipse - Sunset Pearl, black cloth sport seats, 5 sp, AC, Cruise, Sun and Sound Package (sunroof and premium stereo), 24,000 miles, Amsoil synthetic oil always used, Adult owned and in very good condition. This is a very sporty car that gets 30 MPG and runs on regular gas. KBB value is \$11,400. \$13,200/OBO. Jay Gratton (603) 498-8576 or JEG914@AOL.COM

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We are a little behind in our reporting of the Amelia island 2009. The contributors, and editors, of Northlander get distracted from time to time by their day jobs and things do not happen as they would in a perfect world or a big time automotive magazine. So, please, if concours is your passion ... hang on for the July issue.

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