



California Automotive Teachers

Fall, 2010

Spring Issue #38

CAT NEWS

www.calautoteachers.com

Newsletter Highlights

- What's going on in Sacramento.?
- AB 2446!
- Tire Pressure Regulations!
- Variety of Advertisements!

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BRINGING WOMEN TO YOUR AUTOMOTIVE PROGRAM

By Julia Johnson - Skyline College

Demand for women in the automotive industry has never been greater. Opportunities exist where they haven't before and women have the chance to engage in high wage careers. This begs the question, of course, why aren't women enrolling in automotive programs?

In the San Mateo School District, female enrollment in high school auto classes hovers around 20%. At the college level, however, female enrollment drops sharply. Skyline College has had a 2% female enrollment rate in automotive classes for the last ten years, with only two female graduates. It would stand to reason that women would be willing to engage in training that will result in a good paying job. Why aren't women flocking to their local programs?

I don't pretend to know all the answers, but I have found that a simple approach has had an amazing effect on our female enrollment numbers. I received a small grant last year from the President's Innovation Fund on campus to recruit women to the program. This year the grant was renewed and I am pleased to report that we now have eight women enrolled in our certificate programs, up from zero in recent years. The women enrolled in the program are ambitious, smart and willing to do the work. Another trait they have in common is that in previous years, none of them had considered the automotive industry a viable career option.

So, what has changed? Skyline's program continues to be well regarded as a school that turns out quality technicians. Skyline's program has always been open to women and the staff and students support the women who do enroll. Why in previous years have few or no women enrolled and why are they coming to the program now?

The answer is so simple that you might not believe it. The reason women are coming to our program is because ***I invited them.*** Women don't typically go where they think they're not wanted, so my primary goal was to make women aware that they are wanted both at the school and in the industry. Without too much effort or expense, you can develop a recruiting plan to bring women to your program.

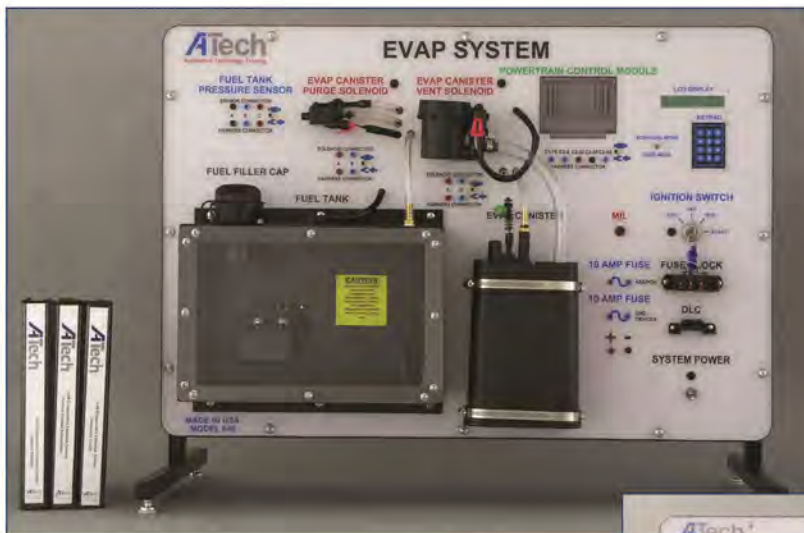
#1 Make Your Message Gender Specific

Chances are, there is a recruiting system already in place for your school. For two years, I actively recruited boys and girls from the local feeder high schools, adult schools and continuation schools in the area. That alone was not enough to interest women and female enrollment stayed

(Continued on page 9)

**The California Automotive Teachers will meet at UTI
for the Fall 2010 Conference on October 15 & 16.**

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President's Letter by John Overton

Financial issues continue to be the on top of our plates as a discussion item. I retired this year and was fortunate enough to have a replacement approved and the programs budget left in tact. I was disappointed to learn that the program from Sonora High School (Stan Smith's our recent High School Teacher of the year) was closed down. District after district continue to make decisions to close programs. I notice that the CTE classes continue to drop in numbers.

The question is what can we do to forestall the drop in CTE programs and student involvement? First, please continue your membership in the California Automotive Teachers (CAT) because it provides a forum for discussion of these and other issues. Your membership in CAT not only brings you our conferences, but gives you a voice in Sacramento and with our industry partners. On your behalf, CAT members serve on State-wide boards and advisory groups to bring forth issues and concerns that are of importance to all of us.



Second, your involvement with your industry partners can be crucial to saving a program that may be considered for closure. CAT has strengthened our ties with the Automotive Service Councils of California; Bob Barkhouse will discuss this alliance further in this newsletter. I encourage you to maintain your advisory counsels and would suggest you include not only the industry partners but where possible bring in your parents and students that can be advocates for the program.

Third, stay tuned into discussions of your administration. Attend the Board, Curriculum, and Facility meetings so your voice may be heard. The time you spend in these meetings might help strengthen your alliances with the decision makers looking for ways to save money. Along with this if you can gain financial support from grants or donations to bring into your program that places fewer burdens on administration to determine how to fund programs when the budget is being cut.

Last, be positive. I know how difficult it is to maintain a positive attitude in bad times such as they are, but people will respond to your positive force and be more likely to support you and make the pro choices for your program and leave the negative ones for the other less positive teacher or program.

As I am sure you are all aware we will be hosting the spring conference at UTI Rancho Cucamonga on the 15th and 16th of October. This promises to be an excellent conference that I am sure you will find beneficial. Please take some time to register for the conference on our website and use the on-line payment features to save you time in registration. Don't forget that late registration, after the 11th of October, increases the overall cost from \$35.00 to \$55.00. I want to thank Jim Custeau, Conference Coordinator, and UTI personnel, for all the work setting up this conference.

A special thanks to Drew Carlson, Second Past President, Quentin Swan, our Colleges, and Industry Partners for setting up the summer training sessions that many of you participated in. The training allows us to maintain the skills necessary to meet both Scholastic and Industry requirements. I was able attend the NACAT conference in Florida and came away with some excellent skills and ideas that I passed on to my replacement at Bret Harte High School.

Don't forget if you want to attend the Board meeting we will be starting at 1:00 Friday afternoon October 15th. Again thanks for all your support and I look forward to seeing you all at UTI Rancho Cucamonga for the fall CAT conference.

Industry Scholarships for your Students!

The Automotive Service Council (ASC) Educational Foundation, Inc., is a nonprofit corporation dedicated to supporting and advancing the entire automotive industry. Governed by the code of ethics, the Foundation serves the industry through educational & training solutions, scholarships, endowments and professional development.

Our scholarship program is open to high school seniors that plan to enroll in post high school technical/academic training or college under-graduates in the automotive service field satisfying certain criteria and can range from \$500 to \$1,000 toward tuition and books. The deadline to apply is FEBRUARY 1, 2011 in order for our committee to complete a thorough review of the applicants and make the awards prior to the end of the school year. (<http://www.ascca.com/main/education/educscholarship.html>)

Executive Director's Report by Bob Barkhouse



Can you believe the summer we have had here in California? For that matter, the whole year; mild temperatures, more rain than last year, very few days above 100° this year and best of all, fewer natural disasters. I hope we can have a similar forecast for each of you that the 2010/2011 year will also be a better year. Jim Custeau (our conference coordinator) and the staff at UTI are hard at work prepping for our upcoming CAT meeting on October the 15th and the 16th. I know money is tight, but it appears that CAT and its seminars are the only venue in town for you to become technically current with all the innovations that the auto industry comes out with each year. In addition to the industry changes, the legislature has two bills that are on the governor's desk that could eventually affect your curriculum.

One of these bills is aimed at the copper in brake pads and shoes. Senate Bill SB 346 (Senator Kehoe of San Diego) will limit copper content in the brake material to no more than five percent after 2021 and no more than five tenths of one percent after 2025. There were other things in the regulation dealing with the business side of a brake job.

The other bill of extreme importance to you and the future of CTE is Assembly Bill AB 2446 (Furutani). This bill allows the completion of an automotive course (or other CTE courses) to satisfy the "elective" requirement mandated for high school graduation. Present law allows the student to choose only a Foreign Language or Visual or Performing Art course to satisfy the elective requirement. Ironically, one of the strong oppositions to this bill comes from the Visual or Performing Arts sector. I quote from one of their advocates - "There is place for career education, but not when it forces students to choose." Remember, these are options and there is no "forcing". Did the author of this comment fear losing students to the reality that many students need a career path that leads to gainful employment?

Both of these bills are on the Governors' desk as I write this report. I feel he will approve them and I will report on them at the CAT meeting.

There are a number of scholarships being offered that need your help by nominating candidates. I am not going to try to list all of them but two have recently come across my desk that need your participation next year. CAWA (California/Nevada/Arizona Wholesalers Association) has a great scholarship and recently announced the winners for this year. The California winners are: Vince Contorno of Annapolis, CA; Le Esten, Rio Hondo College; Cortney Zellman, American River College; Raymond Pauly, Chabot College; Kevin Carone, Weber State University; Steven Leach, Sacramento UTI; Stephen Stegall, Auburn, WyoTech. Congratulations to all of you from CAT and especially to their instructors that took the time to nominate. ASCCA (California Automotive Service Council) also offers a very good scholarship. I do not have their results at this time. Both of these organizations can be reached by going to their web page as follows: asca.com or www.cawa.org.

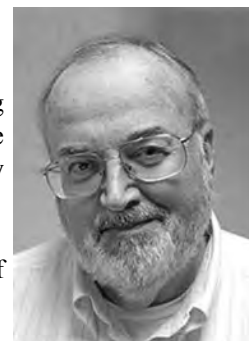
In the way distant past, CAT had a great relationship with an organization called IGO (Independent Garage Owners). IGO was renamed to ASC and eventually ASCCA. As time went on, the relationship drifted apart until recently. Over the last 10 years or so I have been a member of the ASCCA Education Committee. Slowly, we have come to a mutual agreement that a relationship could and should be rekindled. I have met with their Executive Director of ASCCA and we have drafted a potential policy that would bring us back together again. Your Executive Board will take the matter up at its annual all day December meeting. In the mean time, I urge you to become members of your local chapter. The members of the local chapters can help you with service hang ups or technology that you don't quite have a grasp of. They are also strong advocates for your program and can come in handy when matters come before the district. They also are great Advisory Committee members, in as much as they are established and respected in the community. You can join ASCCA as an educator for \$25 a year. It will be the best money you have ever spent! If you do not know where the closest ASCCA Chapter is, go to the above website for their phone number and call the Sacramento office. We will have a lot more on ASCCA in the next newsletter.

Meanwhile, keep the shiny side up and the greasy side down. Bob

High School/ROP Officer's Report by John J. Chocholak

AB 2446 – New Hope for CTE Programs

As of the writing of this article, AB 2446 sits on the Governor's desk. He can sign it, veto it or do nothing at all. If the Governor signs AB 2446 it will become law. If he vetoes the bill, it dies on his desk. But if the Governor does nothing by September 30, 2010, as to this writers understanding, AB 2446 will automatically become law.



The Governor is a supporter of CTE, and it is expected that he will sign AB 2446 and make it the law of the land. AB 2446 accomplishes the following:

1. Currently, ED Code requires (along with other graduation requirements) all students to complete a one-year course in Visual or Performing Arts or Foreign Language in order to graduate from high school. AB 2446 ADDS a one-year CTE course as a fourth option.
2. AB 2446 will add CTE as a 4th option in the arts area commencing in the 2011-2012 school year.
3. AB 2446 expressly states that a school district is not mandated to create additional CTE programs/course offerings due to this bill.
4. High school and ROP CTE courses qualify for this graduation requirement change.
5. AB 2446 requires CTE courses to be aligned to the California CTE State Standards if they are to be used to fulfill a graduation requirement.

Students who take CTE courses that qualify under AB2446 get a special benefit if they are going to a CSU. If a high school has a CTE articulation agreement with a community college, and the community college has a CTE articulation agreement with a CSU, students taking a qualifying AB 2446 CTE class in high school can get CSU credit for that CTE course when they attend the articulated institutions. So, using articulation agreements between schools, college bound students taking CTE classes can get the same benefits for those courses as they do with academic courses taken in high school.

CTA, CFT, ACSA, CATA, CSBA, CITEAF, CAT and many more organizations support AB2446. It passed through the California Senate and Assembly with 100% YES vote and 0% NO vote. Administrators across the state have come out in support of AB 2446 along with major industry associations.

When/if AB 2446 becomes law; it will create new freedom of choice for high school students across the state. It will also most likely help to start the rebuilding of CTE in the California Public School system.

CAT and CITEA will spread the word as to the final outcome of AB2446. Expect news at both web sites shortly after September 30, 2010.

CAT NEWS AD Space!

			<u>Color</u>	<u>Black & White</u>
1.	Full page	(H 9 3/4" x W 7 1/2")	\$300.00	\$200.00
2.	Half page	(H 4 7/8" x W 7 1/2")	\$150.00	\$100.00
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A Message from the Newsletter Editor!

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(2008-01-0554 & 2007-01-1235)

low. It wasn't enough for me to say that opportunities for a high wage career exist *in general*. For my message to reach women, it had to be specifically directed at women.

For approximately \$250 in duplication costs, I printed up a flyer with the same information about classes and opportunities that our regular brochure advertised. The only difference was that instead of men in the photos, I had women. The tagline, "Women Succeed at Skyline College" was prominent at the top and the text was short and to the point - the automotive industry wants you; Skyline College wants you.

#2 You Don't Have to Wrench

This is an important thing to emphasize when you start actively recruiting - there are many jobs that use automotive knowledge that don't involve working on the shop floor. A woman with an automotive background can use this knowledge to take her beyond repair work. Very few people outside the industry know what these positions are and it will be up to you to tell them. Next time you have a group of women together, ask them if they know what a Service Writer does. Ask them what "warranty work" entails. Ask them if anyone wants to own her own business. Women, especially young women, often hold the belief that doing the repairs is the only choice after auto tech school. Make a list of automotive careers that don't involve wrenching and present it to these women. I guarantee that most of them haven't considered these jobs because they didn't know they existed.

#3 Opening Doors to Your Future

Automotive training can lead to lots of different industries and can be combined with other degrees. When I am presenting, I always ask if the students know what special thing they can get from an Associate's Degree from a California Community College. Besides the Associate's Degree, they are guaranteed admission to a UC or CSU. Students can transfer to these schools and add a Bachelor's Degree in Engineering, Business or Journalism (to name a few) to their automotive education and have access to a whole range of careers. A woman who doesn't want to do a physically demanding job may be interested in creating opportunities in the future. Many young women haven't decided on a career and emphasizing that automotive is a pathway that leads to other careers will interest them.

#4 You Are Not Alone

There are a few women at every school who are into cars, have mechanical aptitude and are willing to be pioneers in their field. There are a much greater number of women who are also interested in cars and have mechanical aptitude who are not interested in being pioneers in their field. I obviously don't need to preach to the converted - the pioneers are already in automotive programs and working in the field. I wanted to bring in women who have the interest and the ability, who don't necessarily want to forge a path alone.

To do this, I had to resolve a "Catch 22" situation. I needed women to attract other women, but didn't have any women enrolled in the program. I started with the obvious - women enrolled in our "consumer" classes and our short courses. I personally went to each of them,, told them we wanted them in the program and emphasized their career options. I also invited them to take the "Service Orientation" class. This is a six week class designed to teach the basic skills needed to get an entry level automotive job. Beyond learning the skills, students were given the opportunity to practice (and make mistakes!) here at school before they were expected to perform on the job. Being able to learn in a safe environment made a big difference in their perception of themselves and the industry. And the fact that it was a short course meant that they could try it out without committing a huge chunk of time and money. Four of the eight women currently enrolled in our program came from my short course.

#5 Get the Word Out

In order to reach women with your message, you will need to go to them. In addition to presenting at high school auto shop classes, I worked with the guidance counselors to bring my presentation to girls not enrolled in shop classes. I presented to girls who were maybe curious, but not necessarily ready to chose auto as a career path. Giving them the idea that they are wanted, they can find jobs and that auto can lead to other careers, opened them up to new possibilities.

I also presented to continuation schools and adult schools and I spoke at One-Stop Career Centers and at Cal-Works meetings. Two of the women currently enrolled in our program first heard about us through the social services that they were already receiving. Connect with social services in your area to reach women who are considering new career paths.

Another opportunity to introduce women to the industry would be offering a weekend class just for women. This is an excellent way to break down barriers and dismantle old beliefs. Since it is just a weekend commitment, many women can fit this into their busy schedules and it shows them that they can grasp the concepts, handle tools and do the work. Few women will abandon every-

Excellence in Education

Steve Tomory

Rio Hondo College

Name: Steve Tomory

Age: 48

Family: Wife, Barbara; Daughter, Diane; Son, Greg

Hometown: Glendora, CA

Current city of residence: Glendora, CA

Automotive experience/ how many years:

Over 30 years



Teaching at/ how many years:

Full-Time Auto Tech Instructor at Rio Hondo College since 2001. Was the Technical Training Program Manager for American Isuzu Motors from 1990 to 2000. During that time, taught part-time Community College Auto Tech in the evenings for over 7 years at Citrus Community College. First started teaching full-time High School Auto & Welding Tech at Whittier Union School District and part-time Rio Hondo College Diesel Apprenticeship Program in the evenings from 1988 to 1990.

What was your favorite and least favorite subjects in school:

Favorite was Shop Classes; Least favorite was Statistics

Where do you get your update training:

Reading trade journals, attending seminars & conferences, networking with peers

How did you get your start:

Grew up helping my grandfather at his Texaco service station in Pasadena, CA, and starting tinkering on anything mechanical at an early age. Took shop classes throughout Junior & High School, and started working at a Shell service station in Glendora, CA at age 15.

Hobbies:

Working on my 1967 Dodge Dart; Building scale model U-control & remote-control planes, both non-powered and powered; Playing guitar, bass guitar, drums & keyboard

What is the closest you've been to a famous person:

Governor Arnold Schwarzenegger

Favorite TV programs:

Anything on the History Channel and Discovery Channel

Tell us about a life-changing experience:

I was around 13 years old when I diagnosed a Bosch fuel injected "foreign car" that my grandfather and the other older mechanics could not figure out. It gave me the confidence that I was good at fixing cars and that I could make a good living at it.

What was your first job and what was the pay:

Working at a Shell service station as a pump attendant and mechanic's helper for \$2.65 per hour in 1978.

What is your dream job:

Working as a fleet technician for Jay Leno's or Tim Allen's vehicle collection.

(Continued on page 11)

Person you most admire and why:

Lee Iacocca, because he is an innovator and a leader that helped shape the U.S. Automotive Industry during its heyday.

Favorite music:

Classic Rock

What is your favorite food:

Anything Hungarian or Italian

If you were granted one wish what would it be:

To own a car collection, having at least one vehicle from each decade from 1876 to today.

Favorite sports team:

NFL's New England Patriots

What changes have you seen in your classroom over your career:

The integration of computer technology both in the classroom and in the shop

What is the biggest problem you see for the automotive teacher:

Obviously, shrinking budgets both at the State and Federal level for Technical Education. Another equally important challenge are the low moral and ethical values and lack of motivation factors of the younger generation.

What is the biggest problem you see facing the automotive industry today:

The reliance of government and tax-payer subsidies to keep them the manufacturers in business. They must realize that they need to be responsible for their own actions and not rely on bailout funds. They also need to support the dealers and educational institutions better than they currently do.

Where is training and technology going in the future:

This industry has drastically changed, both in technology and on the business side. Being a technician today is very different than when I was in the trade. Therefore, the training side needs to be more proactive and keep up with the technology and how the business is run to maintain and improve a quality training program. We must realize that training programs are a business and our customers are the students. Remember what Lee Iacocca once said, "The most successful businessman is the man who holds onto the old just as long as it is good, and grabs the new just as soon as it is better."

What was the first car you owned and how did you afford it:

1955 ½ Chevy Stepside Pickup with a 235 cid straight six and three-on-the-tree with overdrive transmission. I bought it when I was 14 years old for \$500 from money I saved from when I had a paper-route as a paper-boy, and working odd jobs.

What are your favorite automotive magazines:

Road & Track; Hemming's Muscle Machines; MOPAR Magazine

Favorite quote:

Lee Iacocca once said, "Apply yourself. Get all the education you can, but then, by God, do something. Don't just stand there, make it happen."

The CAT NEWS will highlight one educator for their excellence and dedication to the automotive teaching profession.

If you know of someone who would be a good candidate contact rick@calautoteachers.com.

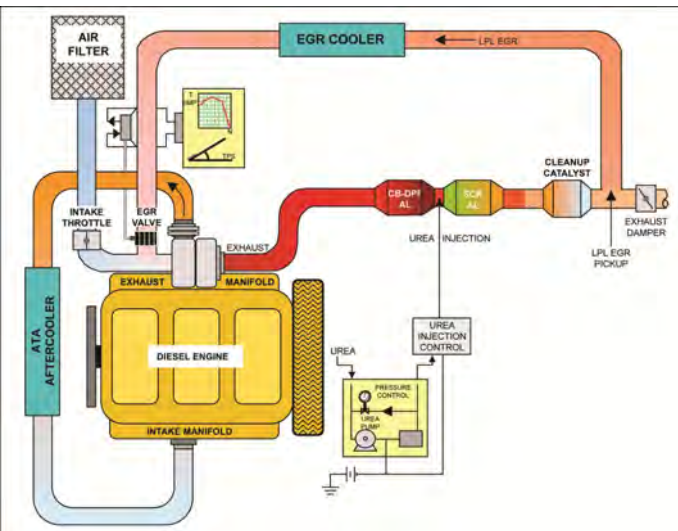
Diesel Emissions

The diesel engine is the most efficient of all piston-driven internal combustion engines to date. Construction equipment, buses, and heavy duty trucks are almost exclusively diesel powered (Not to mention marine, military and mining applications). Europe has grasped the idea of the cleaner, efficient diesel engine and runs diesel-powered vehicles at a rate that is steadily increasing (nearing 60%). Having said this, I must add that regular gasoline is heavily taxed in Europe, thus making diesel much cheaper, along with the added bonus of better fuel economy. The diesel engine as we know it stands at the cusp of becoming the engine of the future, however, further progress needs to be made in the area of emission control.

While the internal combustion engine is a significant contributor to air pollution throughout the world, the diesel engine has the benefit of producing much lower greenhouse gas emissions. These lower emissions are balanced out by the growing concerns over the emissions of Oxides of Nitrogen (NOx) and diesel particulates. These increasing concerns have brought about tighter regulations worldwide and call for near zero diesel emission levels in the years to come.

Diesel emission standards have dramatically changed in just the last few years. The sulfur content in diesel fuels has gone from 500 ppm (parts per million) in 1994 to a current 15 ppm. That is impressive because originally 500 ppm was the low sulfur content fuel. In addition, particulate matter in the exhaust has dropped from 0.10 g/hp-hr to 0.01 g/hp-hr (grams per horsepower hour) and the NOx from 5.0 g/hp-hr to 0.20 g/hp-hr since 1994. These are tremendous reductions, and very low, but some feel that we can get our emissions even lower in the future.

Some manufacturers of mid-sized on road driven trucks use the Diesel Particulate Filter + Exhaust Gas Recirculation (DPF+EGR) method to rid the exhaust of NOx emissions. This system utilizes EGR to lower the NOx levels by reducing the oxygen levels and the temperature at which they combust. A specific NOx absorbing catalyst is added to pick up any residual NOx that is produced. Then they are filtered by the Diesel Particulate Filter. The filter is then regenerated (cleaned) by the introduction of more fuel and a richer mixture to ignite the particulate within the filter. This process generates a lot of heat and in some vehicles utilizes up to three gallons of fuel every 500 to 1000 miles to keep the filter clean.



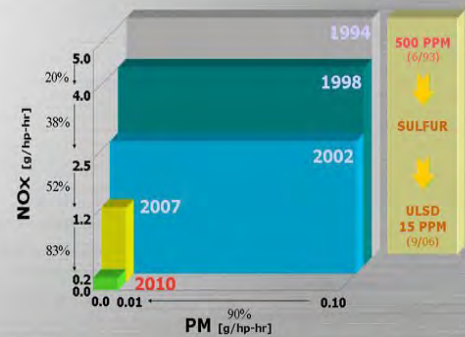
pected to yield approximately 5000 miles of NOx-free driving. European standards state that the vehicle driver will receive ample warning of a low urea tank and 20 twenty key starts on an empty tank. After that, the vehicle will not start until the urea tank is refilled. US regulations are expected to be somewhat similar.

These systems for cleaner emissions are set to revolutionize the diesel engine. This being said, there is no single system that has taken the lead. Multiple systems will be eventually phased out for the low emission leader. As to which one it will be is yet to be decided, and it may be one that is still under development. Only the future will tell.

Jeff Bogue, Assistant Production Supervisor

Atech Training, Inc.

Emission Regulations

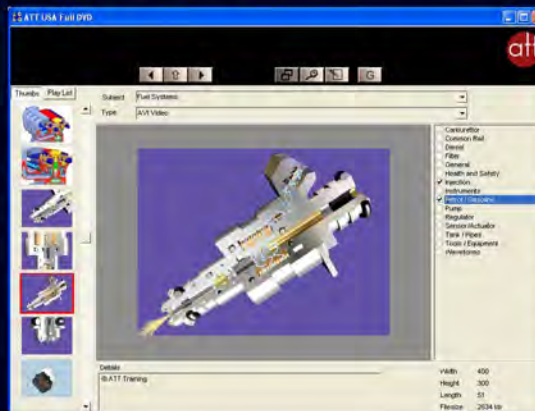


Another method of reducing the emission of NOx into the atmosphere is the DPF+DEF (diesel exhaust fluid, or urea) system. These systems still utilize the Diesel Particulate filter plus a Selective Catalytic Reduction (SCR) catalytic converter. An SCR injects urea into the exhaust stream after the DPF. Heat from the exhaust converts urea into ammonia, or NH₃. The ammonia combines with NOx within the catalyst to create N₂ and H₂O, or nitrogen and water. This is the system that is being adopted by Chevrolet, Ford, and eventually Dodge.

Now, let me state that the urea in the system is not like common urine as some may have heard. It is a highly specialized mixture, so you cannot just do your business in the tank and drive away. Sensors monitor the DEF to assure a mixture of 33% urea and 67% deionized water.

This DPF+DEF system utilizes a small tank that will have to be refilled periodically by the consumer, but an eight gallon tank is ex-

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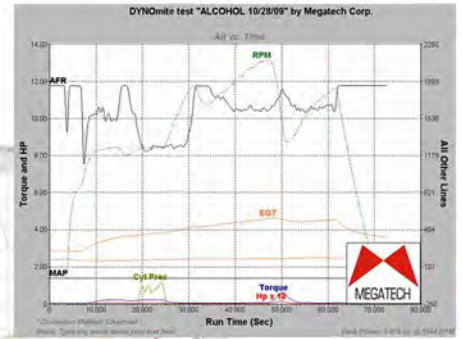
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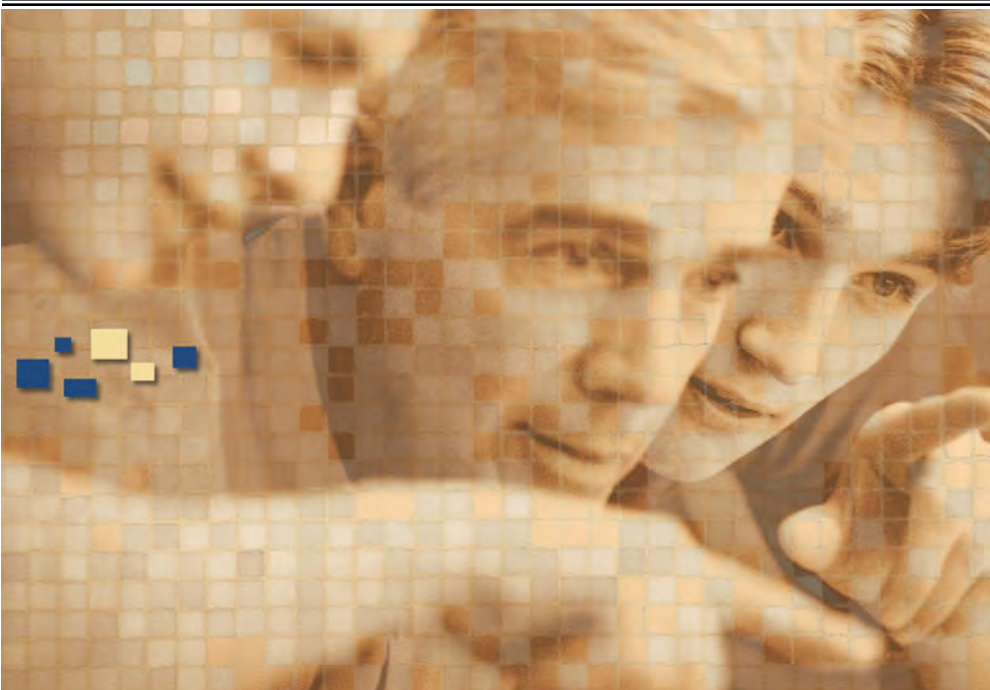
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FALL CAT CONFERENCE

Universal Technical Institute Rancho Cucamonga Campus

October 15 &16, 2010

Our Southern California fall conference is rapidly approaching and we hope you are making plans to attend. Enclosed you will find the latest details to assist you in planning the weekend.

If you are traveling by air the closest airport is Ontario, which is less than three miles from the campus (South West) flies there. If you plan to bring a RV and park overnight on campus it must be self contained since there are no electrical hookups or lavatories provided. A list of hotels is attached to this letter.

On Saturday, we are planning a variety of technical seminars to help you sharpen your skills. Vendors will be out in full force to show you the latest in books, training materials, and equipment. Door prizes will be given away at the end of the workshop on Saturday. We will finish by 5:00 PM., so try to arrange your travel plans so you can stay to the end.

Conference Registration: Conference Registration is online – go to www.calautoteachers.co

For General Conference questions call the CAT Conference Coordinator, Jim Custeau @ 619-660-4334 or email jim.custeau@gcccd.ed.

For specific UTI questions: Contact Debbie Garrett: dgarrett@uti.ed or Steve Waggoner: swaggoner@uti.ed

Friday Activities

For early arrivals we hope to have tours finalized shortly (Banks Engineering is confirmed). Please go to the CAT website for further information as it becomes available on the tentative tours.

PLEASE NOTE: the CAT board will meet at 1:00 PM on Friday at UTI rather than the traditional evening meeting.

Also, there will be no BAR Meetings as in the past.

Friday Schedule

Time	Activity
1:00 pm	CAT Board meeting @ UTI
1:00 – 4 p.m.	Tour – Gale Banks Engineering
1:00 - 4 p.m.	(tentative) tour of K&N Filters
1:00 – 4 p.m.	(tentative) tour of FabTech Suspension Systems
1:00 – 4 p.m.	(tentative) tour of Air Resources Board labs.

(Continued on page 19)

Saturday Activities

Time	Activity
7:30 – 12 noon	Exhibitors (Vendors) and registration
9:15 – 11:30 a.m.	Workshops
12:00 – 1:30 p.m.	Lunch/Keynote Speaker: Gale Banks /Business Meeting
1:30 – 2:00 p.m.	Exhibitors (Vendors)
2:15 – 4:30 p.m.	Workshops
4:30 – 5 p.m.	Closing Raffle/Door Prizes

As of this time, detailed information on technical presentations are not yet finalized. We expect 3-4 manufacturers as well as some of our regular participants doing presentations. Please watch for details in coming weeks on the CAT website:

www.calautoteachers.com

HOTELS

GOOGLE: Rancho Cucamonga/Ontario – or go to your favorite on line booking source such as Expedia, Travelocity or ORBITZ. Remember – the earlier you book the better rates you are likely to get.

If you are planning on staying at the Hilton and want the group discount mention UTI - CAT. If you just say UTI they may not know what you are talking about and you may not be offered the group rate.

Main Conference Hotel:

Hilton – Ontario Airport

.5 mile S from UTI

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Ontario, CA 91764

909.980.0400

www.ontarioairport.hilton.com

Rate: \$85.00/night, free airport shuttle
and shuttle to UTI.

Mention UTI when making reservation

Best Western Inn Suites Hotel Ontario Airport

3400 Shelby St, Ontario, CA - (909) 466-9600

.9 miles south from UTI

Holiday Inn Express Hotel and Suites Rancho Cucamonga

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(909) 581-3846

1.1 miles East from UTI

Other hotels in area:

La Quinta Inn & Suites Ontario Airport

3555 Inland Empire Blvd, Ontario, CA

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.7 miles south from UTI

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Where Have They All Gone?

Wayne Olson, Retired 2007



Ever wonder what automotive educators do after they retire? Well I have and I got to thinking that maybe others might have the same curiosity as me. So I came up with an idea to host an article in the CAT newsletter and invite our retirees to tell us what they're doing since they left the classroom. I'm not picky about what format I get them in, even on toilet paper ! Doesn't matter to me, just send it and I'll make it pretty to send to Rick for the newsletter.

I figure we've got enough guys out there who have retired or are about to retire to keep us in articles for several years. Send your articles to me at jan_wayne@msn.com (don't forget underscore between jan and wayne) or by snail mail at 16442 Woodstock Lane, Huntington Beach, CA 92647. Just to get the ball rolling, I'll go first.

After 31 years in the community college system, I hit the magic numbers to allow me to retire with a decent income. During the first year I did a brief stint as an acting dean at Compton Educational Center (previously Compton College, now under El Camino College). I wasn't there long as my maximum earnings were getting close and I sure wasn't going to do that job for free. Those of you thinking of retiring and maybe doing part time work need to be aware that you need to create a one year window of not working for a school district or you are limited on how much you can earn by legislation.

I also did a NATEF prep consulting job for Saddleback College which I enjoyed way more and would enjoy doing again if asked. All I do is set up a contract with the district to cover my time and expenses. I go in and compare existing conditions with NATEF and write a report with recommendations on what changes need to be made to prepare before the official NATEF team comes in to validate the standards.

Beyond work related stuff, I enjoy boating, wave runners, mountain biking, white water rafting on the American River, tube rafting on the Kern River, snow skiing, walking, time with my two dogs, camping and partying with a group of close friends, gardening, going out to dinner occasionally and time at our vacation home in Big Bear Lake. All that pretty much keeps me active which I've been told will keep me going and doing those things for many years. I'd like to think I can replicate my brother Gene's record of being retired as long as he worked as an Los Angeles City Fire Fighter. which he accomplished this year.

A year before I retired, I did get married to Jan who is a police officer at El Camino College and has a few years to go for retirement so yes I robbed the cradle! Jan and I met when I was working at El Camino as a dean some 17 years ago. She went on some rafting and skiing trips I organized and later, after my divorce to my first wife after 30 years, the friendship blossomed and we were together for several years until I decided we needed to make it official and walk down the aisle on a paddle boat, ("Tahoe Gal" out of Tahoe City) in Emerald Bay. We were lucky as it snowed the day before and 2 days after the wedding day and our ceremony was done with a mostly clear but slightly breezy day.

In 2007 after I officially retired on July 1, I coordinated a very successful NACAT conference aboard the Queen Mary Ship in Long Beach. I had a great team working with me comprised of members of CAT who stepped up and helped organize each major portion of the conference. We broke ground on a few first's like having everything in one place and the first organization to host a conference (individual schools usually do it) That was a great ending of my career and great start for my retirement.

I am definitely not bored and it's wonderful to pick and choose what you want to do and when you want to do it and for how long. I highly recommend it!

For those thinking of doing an article, you don't need to feel pressure on the length of what you send me, anything is acceptable. I'll be waiting for your articles!

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Smog Check Program Legislation Aims For: Clean Air Benefits, Lower costs, Conveniences

SACRAMENTO: The *Air Resources Board and the Bureau of Automotive Repair* are jointly sponsoring legislation that is projected to save consumers money, save time and provide greater air quality from the state's Smog Check program, which is administered by BAR.

Addressing challenges raised by a recent analysis of smog check, Assembly Member Mike Eng (D-Monterey Park) introduced AB 2289 that will provide faster and cheaper service to more than 70 percent of vehicles in California. The bill also directs older, high emitting vehicles to the highest performing stations.

"The Smog Check program is one of the most important air quality programs that we have to meet state and federal air quality standards," stated Assembly Member Mike Eng. "AB 2289 is designed to improve the program in reducing pollution through the use of new technologies that provide considerable time and cost savings to consumers while at the same time improving consumer protections by adopting more stringent fine structures to respond to station and technicians that perform improper and incomplete inspections."

"If signed, this bill will allow a major upgrade in the technologies used to test vehicle emissions," said BAR Chief Sherry Mehl. "It will result in cleaner air and has the potential to reduce the cost of a Smog Check for many consumers, as well as reduce the time spent by consumers getting their vehicles inspected."

"This new and improved program will have the same result as taking 800,000 old cars off the road, also resulting in a more cost effective program for California motorists," said ARB Chairman, Mary D. Nichols. "Today's announcement will add additional improvements to one of our most effective programs in our fight for clean air, capturing up to 70 tons-per-day of smog-forming emissions."

One way the program would reduce costs is by taking advantage of on-board diagnostic technology installed in all new vehicles since 1996. The program will now take better advantage of OBD technology by eliminating tailpipe testing and instead using the vehicle's own emissions monitoring system. This system has saved consumers time and money in 22 other states.

The recent statewide audit of the Smog Check program revealed that 19 percent of vehicles that initially passed testing failed subsequent roadside tests within a short period of time. The audit can be found at:

<http://www.arb.ca.gov/msprog/smogcheck/smogcheck.htm>.

Reacting to these findings Assembly Member Eng designed legislation that includes the following:

- Authorize the use of On Board Diagnostic II testing to expedite the process;
- Vehicles known to release large amounts of pollution must test at stations with the highest performance ratings;
- Stricter fines structure for improper inspections;
- Permit the state to contract with the private sector to manage franchise-like networks of independently owned Smog Check stations;
- Mandate an annual evaluation of station performance using roadside tests; and,
- Encourage community colleges and other training institutions to develop technician-training programs.

California's Smog Check program, administered by the Bureau of Automotive Repair, began in 1984 to identify vehicles in need of maintenance and to assure the effectiveness of their emission control systems on a biennial basis. Currently, Smog Check cuts 400 tons of smog-forming emissions from California's air each day.

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The screenshot displays the Gates Corporation website. The header includes the Gates logo, the tagline "The world's most trusted name in belts, hose and hydraulics," and a search bar. Navigation links include Home, Contact Us, About Gates, Gates Careers, News, Where To Buy, and Join/Login. A red navigation bar highlights "Power Transmission," "Fluid Power," "Aftermarket," and "OE." The left sidebar lists "Solutions," "Catalogs," and "Part Interchanges," with a "techTIPS" section below it. The main content area is titled "Education for Future Technicians" and lists several training resources: "How to properly inspect, maintain and replace important front-end accessory drive and cooling system components - primarily belts, hoses, tensioners and the water pumps," "Further your education and enhance customer service," "Training Information," "techTIPS," "New Era in Belt Diagnostics," "Gates Alternator Decoupler Training," "Fuel Hose Training," "Gates Solutions," and "Preventive Maintenance Video." Two red arrows point from the "Preventive Maintenance Video" link to two inset images: one showing a "Gates Pulley" and "One-Way Clutch" diagram, and another showing a "Gates Accessory Belt Drive System Preventive Maintenance" video frame.

FOR ADDITIONL INFORMATION CONTACT:

Bobby Bassett Manager of Training NA
Gates Corporation
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Phone: 601-954-4152
E-mail: rbassett@gates.com



Industry Group Discovers the Real Reason to Change Brake Fluid

Tom Mettner, President, Council of Advanced Automotive Trainers



Not long ago an ABC news reporter asked a shop owner why he sold a brake fluid change to one of his customers. The shop owner, struggling to come up with a justifiable reason, said "It's just a good thing to do," taking that cue, the news reporter turned to the camera and said, "Sure its a good thing to do.... for this shop owner's pocket!"

A few years ago a group of automotive professionals got together with the mission of finding out whether or not brake fluid really needed to be changed and why. This group was a task committee for the Automotive Maintenance and Repair Association, (AMRA). The task force started out by listing all the reasons to change brake fluid that were commonly know throughout the auto repair industry. The most obvious was OE service interval. We were all surprised to find out that GM, Ford, and Chrysler do not have service intervals for brake fluid while most imports do. We wanted to know why the imports have an interval, so we contacted the OE import manufacturers but were unsuccessful in finding out the reason for their service intervals.

We than examined the top reasons shop service advisors recommend brake fluid changes. They were color, hygroscopic or low boiling point, and contamination.

The first reason, color, was eliminated when a brake fluid manufacture in the group said that there are some blends of brake fluid that turns dark from metals in the brake system and brake hose dye even before the vehicle hits the street.

The second reason, brake fluid being hygroscopic, was eliminated after learning about a test that was conducted with a fleet of high mileage vehicles and less than 1% failed for low boiling point. Low boiling point was something that happened years ago but because today's vehicle improvements like; better brake fluid formulas, sealed brake systems and brake hose material being EPDM versus rubber, less moisture gets into the system and the loss of brake pedal due to vaporization is a rare occurrence.

The group was left with contamination to investigate. Contamination caused by someone adding oil, transmission fluid, or power steering fluid to the master cylinder was acknowledged but they were more interested in what happens as brake fluid ages. The group discovered upon further investigation that the National Institute of Standards and Technology, (NIST) conducted a six year study, requested by the National Highway Transportation Safety and Administration, (NHTSA) regarding corrosion in vehicles braking systems. Surprisingly, the NHTSA's Office of Defects Investigation, (ODI) was very helpful with providing us with their study.

The NIST study concluded that when corrosion inhibitors in the brake fluid wear out copper braising from the brake lines contaminate the brake fluid. These copper ions interfere with ABS dump valves and act as stimulants causing other metals to corrode. Dr. Rickert, the corrosion expert at NIST explained, "Copper corrosion comes from oxidation in a pumping ABS system." He said, "If you look inside a copper water pipe there will be no corrosion, but on the outside you will see signs of corrosion because it is exposed to oxygen in the air. Dr Rickert determined that at 200 PPM of copper the corrosion inhibitors were depleted and the brake fluid is unable to protect the brake system and therefore it should be changed.

Brake fluid corrosion inhibitors deplete in vehicles at different rates leaving the internal parts of the brake system vulnerable to corrosion. The factors that contribute to this corrosion are: the OE brake fluid corrosion inhibitor package, the vehicle braking system, and vehicle owner driving habits. Brake fluid can last anywhere from 15,000 to upwards of 60,000 miles. This is why brake fluid should be tested to determine when it should be changed.

(Continued on page 25)

How do you test for copper in the brake fluid? There is a test called Brake Strip that was developed by Phoenix Systems. You dip the test strip in the vehicle's brake fluid and compare the color on the strip to a color chart on the tube. This will accurately tell you how many parts per million of copper are in the brake fluid.

From the research conducted by the task force members the auto repair industry can now test and explain to their customers when and why to change their brake fluid. The Motorist Assurance Program, that creates standards for the industry and motoring public, has adopted the testing of brake fluid for 200 PPM of copper as an industry accepted standard for recommending changing brake fluid.

California Air Resources Board Tire Pressure Final Regulation Order!

Below is some information received from the ARB regarding the reference chart they are recommending for us to use. As you can see, they do not endorse or recommend any specific source so if you find another source that you feel meets the guidelines I guess use it!

The website for the tire guide is www.tireguide.com. The only place I found for the Tire and Rim Assn. Yearbook requires a membership number. So I will to see what I can find for them and if they are willing to share with the others in the aftermarket.

Below is the tire pressure statement written by Paul Wilson at Fairview Shell. He ran the statement past the BAR and they told him it was sufficient.

This is from ARB FAQ: What type of Tire inflation reference do I need?

A: The most popular tire inflation reference resources that are in use by ASPs are the Tire Guide and the Tire and Rim Association (TRA) Year Book. ARB does not endorse or recommend either resource. ASPs may use any reference resource of their choosing as long as it meets the regulatory requirements.

TIRE INFLATION SERVICE

VEHICLE TIRES HAVE BEEN CHECKED & INFLATED TO THE RECOMMENDED PRESSURE IN ACCORDANCE WITH CALIFORNIA CODE OF REGULATION SECTION 95550, SUBARTICLE 8

DRIVER'S SIDE FRONT PRESSURE: _____ psi DRIVER'S SIDE REAR PRESSURE: _____ psi

PASSENGER SIDE FRONT PRESSURE: _____ psi PASSENGER SIDE REAR PRESSURE: _____ psi

TIRE INFLATION SERVICE DECLINE

CUSTOMER DECLINED SERVICE DUE TO:

1. NITROGEN INFLATION SYSTEM IS NOT AVAILABLE
2. CUSTOMER HAS PERFORMED SERVICE WITHIN LAST THIRTY (30) DAYS
3. CUSTOMER WILL PERFORM SERVICE WITHIN THE NEXT SEVEN (7) DAYS
4. OTHER: _____

CUSTOMER INITIAL: _____

This information was provided to CAT by CalABC. CalABC's Board of Directors is diverse and representative of the industry, and participates in the organization's management. The Board is made up of individuals who represent trade associations, automotive training and education, associations and executives who run the day-today organizations of their associations.

thing to jump into a career they know nothing about. Many more women will consider a new career if they have had a successful "taste" of the work and the opportunities.



#6 Support Them While They're in School

This is the crucial part. It doesn't do any good to actively recruit women, only to have them drop out a semester later. Earlier I mentioned that Skyline has had two female graduates in the last ten years. This is not to say that they've had only two females *enrolled* in the last ten years. There have been other women in the classes, but they don't stick around.

This year, as part of the recruiting program, I am developing a retention program. We formed the "Heart Wrenchers" a club for women in automotive technology. I have invited women working in the industry to participate through mentoring, guest speaking, hosting events or whatever they can contribute. During club meetings we address challenges and barriers and seek to resolve any problems that arise. I have found that typically, women will internalize these barriers. Rather than say, "this is a problem for me" they feel that it is *their* problem and don't attempt to seek help. Instead of addressing issues, they drop out, assuming that this industry simply isn't for them.

Working together as a group has made them much more confident and they're taking a lead role in their classes and with the community. Several of the women in the club have taken automotive classes previously. They were interested, but hesitant and genuinely lacking in confidence. Working with the other women has changed their outlook dramatically. Women that didn't feel like they "knew enough" are now working in shops, taking leadership roles in the program and generally blossoming with the support they receive.

Support from the staff is crucial. A woman can be at the head of her class and still feel like she's failing unless she has some positive feedback from her teachers. Without positive feedback, many women will drop out. I'm not saying you need to shower them with praise, but they do need to know if they're doing a good job. A little support goes a long way and I see it every day with the women in our program. The staff here is 100% behind their female students and they make sure to let them know. Encouragement, a little praise and just knowing that they have a place in your program will make all the difference. If it wasn't for our teacher's active support, I know that we wouldn't have achieved what we have so far.

Creating a successful recruiting and retention program will take effort. You will have to spend some time initially going to schools and career centers, making presentations and advertising your programs. If you are successful in attracting women to your school, then those women can help with your recruiting plan. Your efforts will take on a life of their own if you take the time to invite the women, inform them of career opportunities and show them that automotive technology can lead to many career opportunities in the future.

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The CAT Newsletter is always looking for technical articles and advertisements! The deadline for submitting articles and ads is March 15th for the spring issue and September 15th for the fall issue. Articles should be submitted in Word. It is preferred that ads be submitted in JPEG or EPS formats, PDF will work but sometimes the text is distorted once it is placed into the newsletter. The costs and sizes for advertisements can be found on our Website.

For additional information about the California Automotive Teachers' organization,
future conferences, job announcements and much more:

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www.calautoteachers.com

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980 Fremont Street
Monterey, CA 93940
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