

Section Web Site: www.saearizona.org

NEXT MEETING MAY 20

HIGHLIGHTS...

- | | | |
|--|----------------------------|--|
| - Presentation.. <i>The Nissan Titan</i> | - Governing Board Meetings | - SAE to Hold Advanced Refrigeration Systems Symposium in Scottsdale |
| - Coffee Talk.. <i>Recovery Parts Washing System</i> | - Recap of April Meeting | |
| - Message from the Chair | - Joint SAE/ASME Steak Fry | |
| | - Election of Officers | |

Dinner Presentation...

The Titan...

Nissan Enters the Full-Size Truck Market in a Really Big Way
Presented by *Larry Dominique*

The all-new 2004 Nissan Titan brings an exceptional combination of powerful performance, bold styling and a new level of innovation to the full-size pickup market. The Titan is Nissan's biggest vehicle and biggest statement yet. It signifies Nissan's entry into the full-size pickup truck market and redefines Nissan as a full-line automaker. Larry Dominique, Chief Product Specialist and Director for Product Planning of the Titan, will provide insight into Nissan's powerful entry into the full-size truck market.

automatic transmission with a gated shifter. The Titan's towing capacity is rated at up to 9,500 pounds - as much as some 3/4-ton pickups.

The use of advanced engine technology such as aluminum block with cast iron cylinder liners, forged steel crankshaft, microfinished crankshaft and camshaft, graphite-coated pistons, 6-bolt main bearing caps, and Super Silent single-stage timing chain result in excellent fuel economy with no sacrifice

Titan continued on back page....



Nissan Titan Crew Cab

The heart and soul of the Titan is pure, unabashed power. Building on Nissan's reputation for advanced engine design, Nissan focused on horsepower, torque, towing power, acceleration and fuel economy/driving range with the development of the Titan's standard 5.6-liter DOHC V8. Rated at 305 horsepower and, equally important, 379 lb-ft of torque, the engine is matched with a specially engineered 5-speed

Coffee Talk...

Recovery Parts Washing System

Chris Leppo, Director of Operations & Marketing for Selig Industries, will provide the Coffee-Talk presentation on an innovative Recovery Parts Washing System.

Unlike a typical parts washer which must have its solvent replaced on a regular basis, Selig's uses a proprietary filtration technology to remove soluble oils, grease, high-molecular-weight hydrocarbons and particulates from the solvent to allow for continuous use without disposal. This process is as effective as solvent distillation units without the capital expense or emissions concerns.

Chris Leppo

Mr. Leppo has an educational background in Chemistry and Biology from Georgia State University and did Masters Studies at Georgia Tech in Environmental Engineering.

DATE	TIME	LOCATION	COST
Thursday	Social - 6:00 pm	Holiday Inn (Phoenix Airport)	Students - \$10
May 20	Dinner - 7:00 pm	44th St. & Washington	Members - \$18
	Presentation - 8:00 pm	602-273-7778	Guests - \$19

***RSVP by 2:00 pm Monday May 17 Call Robert Q. Riley: 623-872-3475**

Message From the Chair.....

It's hard to believe the time has come so quickly, but we are gearing up for our last dinner meeting of the 2003-2004 year. It just seems like yesterday that we were announcing Steve Trimble's presentation for the September 2003 year.



April's dinner meeting with our speaker, Dave Acton, was well received by all who attended. Mr. Acton is an expert in the field of telematics and his presentation and answers to the many questions that followed certainly bore testament to that fact. A special thanks to Max Rumbaugh for asking Dave to speak to us.

As SAE members, we love to look at new cars and May's presentation promises to be a great one! There's a new full size pickup on the road and it's called Titan. Attend the May meeting and hear the inside story on this exciting new vehicle. You'll also get to get a first-hand look at a Titan truck as we plan to have one on display. Derek Logan is to be thanked for arranging for this presentation and also May's coffee talk, covering the topic of lubricants.

You may see a few new faces at the May meeting as we have invited our engineering colleagues from ASME to join us for this gathering. We have also agreed to invite SAE members to the ASME Steak Fry this month (see details elsewhere in the newsletter). This used to be an annual tradition with the two organizations but had not occurred in recent years. One of my goals as chairman this year was resurrect this interaction between societies and the steak fry invitation is a culmination of that effort.

In closing, I would like to thank you all for allowing me to serve as your chairman this year. It has been a rewarding experience for me and I trust you have enjoyed the various learning and social opportunities we have offered this year. This year's governing board has been the best I have ever worked with—truly a fine group of top-notch individuals.

You will find a slate of nominees for next year's governing board elsewhere in the newsletter this month. Please plan to approve this ballot by acclamation at the May meeting. See you all on the 20th!

Todd Zuercher

Section Board Meetings

Members are invited to attend Governing Board meetings. Meetings begin at 4:30 pm on the Monday following our dinner meeting. We meet in the lobby of Allied Signal on the S.E. corner of 34th Street and Washington. See next month's newsletter for summer meeting schedule.

Recap of April Meeting by Max E. Rumbaugh, Jr.

Airplanes, military vehicles, trucks, automobiles, their occupants and drivers will have greater electronic connectivity to the world. Today's capability to pay tolls without stopping, use the cell phone, track stolen cars, remotely unlock doors and automatically call for emergency assistance is the early stage of the bigger future of electronic connectivity.

Some manufacturers of aircraft believe that airlines and their customers will expect to be continuously in contact with others throughout the flight. Defense department is developing a system where the soldier and equipment will be part of an electronic warfare scenario. Some auto manufactures are developing visions to build upon the current capabilities to receive, deliver and pass through information between the vehicle, its occupants and the outside world.



SAE Chair, Todd Zuercher thanks speaker Dave Acton for a great presentation.

The ground transportation community calls such systems "telematics." While the aerospace and defense industries are working on similar technologies, they do not refer to it as telematics.

According to Dave Acton, recently retired director of global telematics at General Motors, a major motivation for achieving this future in the auto, truck and highway industries is to reduce not only fatalities, but also injuries and congestion. The benefit will be the avoidance of accidents. Vehicles, even with all the onboard electronics and computers imaginable, cannot be designed and built to eliminate accidents on their own. The only way this can be achieved will be if the vehicle and its driver are connected to the infrastructure so that information can be interchanged.

Surveys of users of some currently available embedded GPS/cell phone vehicle connection systems indicate that one of the most requested uses is to unlock doors remotely; a very unsophisticated use of these systems. The largest use is for trip routing information. This is followed by stolen vehicle location and emergency airbag deployment notification.

The success of electronically connected vehicles will come only when it is broadly available to a full spectrum of owners and users. It must move from being a luxury item to a "must have" feature.

As this happens, the customer, not the technology, will dictate what the future will be like. Visionary engineers feel that the following are very achievable characteristics of a future system:

- Link the vehicle to home, business, other vehicles, etc,

- Different information for the driver than for the passenger. For example, entertainment systems for the passenger vs. driver necessary information,
- Rapid notification of congestion and alternate routing suggestions,
- Continuous vehicle diagnostics for the driver and the service establishment,
- Personalization and integration of services for the individual customer needs,
- Drunk or impaired driver identification and restriction.
- Collision avoidance
- Improved human/machine interfacing,
- Every vehicle will be able to communicate and be communicated with.

There are significant real and perceived concerns regarding the broader deployment of this technology. They include cost, privacy and driver distraction issues.

Engineers are already seriously addressing the manufacturing cost of the system. However cost is not the only issue. The cost-value equation is the important matter to be addressed. The cost must be brought down to match the perceived value of the system while efforts are made to increase customer perception of its value. Successful deployment will occur when the customer covets, expects and demands the system on their vehicle. Proponents feel that achieving reduced fatalities, injuries and congestion are major and achievable societal goals for this technology.

Concern about driver distraction is one that periodically appears in the media and by government. It is also a "been there, seen that" issue. The first automobile driver distraction was the introduction of the windshield wiper. Upon their introduction in the 1910's there was documented concern that drivers were focusing on the windshield wiper passing in front of their eyes rather than on the road. When the radio was first introduced in automobiles, there was again a major concern about drivers listening to the radio and not concentrating on the road. Driver distraction is a real problem, often solved by customers becoming acquainted with the new technology. Prohibition of technology should not be the answer.

A third serious matter is privacy. A percentage of drivers of vehicles with emergency response notification systems express concern that they do not want authorities to come to their assistance in case of an accident. Some people do not want others to know where they and their vehicles are. Also, drunk and impaired drivers often feel that their privacy rights will be violated if their cars are disabled when they are in such a condition. The privacy issue is one that society must address and solve. It is not a showstopper for the technology because the equipment can always have a disabler. However, the benefits of the systems will be better achieved when the personal rights vs. societal needs regarding individual privacy

are more fully addressed.

Momentum is on the side to fuller deployment of this technology. Improved traveling experiences, safer and less stressful driving and enhancement of the fun of driving all are forcing functions for its expanded use. Currently the US Congress is considering legislation for a six-year development and demonstration effort on electronic vehicle/infrastructure interfacing. When passed, this program will occur during 2004-2010. Deployment of the outcome would be the next step, which could occur during the 2010-2016 time frame.

In the meantime, vehicle engineers and infrastructure engineers should begin interfacing themselves. The optimum reduction of accidents and congestion will not be achieved with onboard-only electronics. They can only be achieved by integrating the vehicle and infrastructure electronics and information exchange systems. The vehicle must be capable of receiving, delivering and passing through information to the outside world.

Successful deployment of telematics will occur when the customer covets, expects and demands the system on their vehicle. Proponents feel that achieving reduced fatalities, injuries and congestion are major and achievable societal goals for this technology.

Joint SAE/ASME Steak Fry

Our SAE Section has again been invited to attend the annual ASME steak fry. It is being held on May 13 at the PERA Club, 1 East Continental Drive in Tempe (South of McDowell and West of Scottsdale Rd). The cost is \$15 per person. Social hour begins at 5:00pm and the steaks hit the grill at 5:30pm.

Please RSVP to Mark Jones before Monday, May 10: 480-759-2958. Leave a message with your name, the number in your party, and a phone number where you can be reached.

Election of Section Officers At Our May 20 Meeting

At this month's meeting we will vote to elect a new slate of officers for the coming year. Voting will be by acclamation. Nominations include:

Chair	Kevin Willson
Vice Chair	Allan Watts
Secretary	David Vasquez
Treasurer	John Lester
ANC Delegate	Jeff Brown
1st Alternate	Derek Logan
2nd Alternate	John Lester
Vice Chair - Student Activities	Derel Logan
Vice Chair - Arrangements	Paul Curry

...Titan from front page
of performance.

At 126 cubic feet, the Titan Crew Cab offers more interior space than any competitive half-ton crew model. The Crew Cab also offers class-leading front and rear headroom and is available in five- or six-passenger configurations. The Titan Crew Cab features a front passenger seat that folds flat to allow extra storage and can also be used as a working area.

Along with the "everyday innovations" found in Titan's storage and comfort details, the Titan King Cab features a true breakthrough design innovation - a first-in-class Wide-Open rear door that swings open nearly 180 degrees, providing unprecedented access to the rear seats. Key to the door's design is a hefty, two-stage hinge with four axis of rotation. The door opens first to a conventional 85 degrees, then can be swung to nearly 180 degrees.

The Titan was developed mainly in North America.

Larry Dominique

Larry Dominique is a chief product specialist and director in the product planning department of Nissan North America (NNA). Dominique holds a bachelor's degree in electrical engineering from Lawrence Technological University in Southfield, Mich.

Meeting Schedule

May 20	- Nissan Titan Pickup
May 13	- Joint SAE/ASME Steak Fry

SAE to Hold Automotive Alternate Refrigerant Systems Symposium in Scottsdale

In response to concerns about the emissions of greenhouse gases (GHG), the mobile air conditioning industry has been investigating ways to reduce GHG emissions. As part of this international activity, SAE has supported projects such as the Alternate Refrigerant Cooperative Research Program, and the Phoenix Alternate Refrigerant Symposiums. SAE is announcing the convening of this sixth industry 2004 summer meeting and is asking you and your company to participate.

The symposium will take place June 29 - July 1, 2004 at the Resort Suites Hotel, Scottsdale, Arizona. For more information, contact Colette Wright at 724/772-8517; email: wright@sae.org.

Todd Zuercher Chair 480-441-1595	Kevin Willson Vice Chair 602-997-7593	Dave Vasquez Secretary idave@asu.edu	John Lester Treasurer 480-733-6532	Robert Riley Newsletter Editor 623-872-8010
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