Henry Ford Library Hosts Talk

The Henry Ford Centennial Library will be hosting a book talk regarding railroad history on Tuesday, Feb. 1, at 7 p.m. in the Auditorium.

Local transportation author David Mrozek will be discussing his Arcadia Publishing book, "Railroad Depots of Michigan: 1910 to 1920."

It turns out that Michigan actually has a rich railroad history. The public is invited to attend this informative presentation about railroad stations in Michigan, both past and present.

Mrozek is a retired financial analyst, and has been interested in trains and railroad stations since the mid-1960s, when he was a teenager growing up in Dearborn.

In 2008, he published his first book with "Railroad Depots of Michigan: 1910 to 1920," which examines Michigan railroad stations in their larger, early 20th-century heyday.

The program is free and presented as a community service by the Library. For more information call 313-943-2330. The Centennial Library is located at 16301 Michigan Ave. in Dearborn.

Tesla Launches EV-Car Battery Recycling Effort

Tesla Motors announced that it has launched a comprehensive strategy to recycle its EV-car battery packs throughout Europe.

At the end of their long life, Tesla will recycle its battery packs at Umicore's UHT facility in Belgium. The Brussels-based materials technology company will use the expended pack material to produce an alloy that will be further refined into cobalt, nickel and other metals.

After that, Umicore will transform the cobalt into high-grade lithium cobalt oxide, which can be resold to battery manufacturers.

One of the few byproducts of their environmentally friendly approach is a clean, inertized slag containing calcium oxides and lithium. The slag goes into the production of special grade concretes.

Umicore's battery recycling technology allows it to save a minimum of 70 percent on CO2 emissions at the recovery and refining of these valuable metals. So, it can substantially reduce the carbon footprint for the manufacturing of lithium-ion batteries.

Tesla has been building and selling highway-capable, fully certified electric cars for three years now. It is based in California.

CCS student Joel Zastrow developed a military vehicle for World Technical Services Inc., in partnership with TARDEC. The vehicle will debut as a prototype at the Pentagon for later display.

Transportation Design Student Creates Armored Vehicle for the U.S. Army

by Stefanie Carano
Staff Reporter
Detroit Auto Scene

College for Creative Studies student Joel Zastrow has created one mean fighting machine for the U.S. military.

Zastrow, a transportation design senior from Troy, developed a defense vehicle as part of a class studio project sponsored by WTSI (World Technical Services, Inc.) in Troy and TARDEC, which is the U.S. Army lab in Warren.

His design was presented among other winning CCS student designs at the recent 2011 North American International Auto Show at Cobo Center in Detroit.

"Since I was a kid, I was always interested in military vehicles," Zastrow said. "I thank God for the opportunity and the ability to work on it."

Zastrow describes his vehicle as more capable than your typical Humvee. In its development, flat panels were required for the body, since the armor the military has can't be bent.

Zastrow designed the vehicle to be armored completely around the occupant's body, as close to the body as possible, with areas to help air move cleanly around the A pillars and a v-hull to deflect glass up and out.

"Basically, the army came to us and they wanted something that looked tough, that looked like a military vehicle, but at the same time they didn't want it to be too unfriendly, because they're driving through a lot of towns," Zastrow said.

"The army set up a lot of requirements for this vehicle and it was actually more rigorous than the military Humvee," he said. "The shape is pretty specific for aerodynamics."

Zastrow was selected among the 17 students in his class as a first-place finalist.

From there, he became WTSI's first intern and was allowed to develop his vehicle further while working at the company this past summer.

"Actually, I rebuilt the whole model at the internship because more requirements came and the engine changed places," he said.

"Stuff was moving around and we just got more information on what needed to be placed in certain areas, so some stuff had to be changed. So, I had to manipulate the surfaces a little bit here and there. If you put it up side by side, you can tell, but it's pretty close to the original concept."

While at the internship, he worked with company engineers and representatives from TARDEC would come in quite a bit and review what was being done.

"So we presented stuff to them at WTSI and I worked right along with the engineers, so it's just back and forth communication, which is really nice," he said.

"Around my design, they built the frame around that and they did all the testing – there's a lot of strength testing – and we did Computational Fluid Dynamics for aerodynamics on the model as well."

Zastrow's vehicle is scheduled to debut as a prototype at the Pentagon in Washington, D.C., sometime in late October.

"They're going to be building only one and they'll test it. From there we'll see what happens," he said.

Besides WTSI, Zastrow's other internships included Pratt and Miller, an engineering firm in New Hudson, this past semester.

"I actually designed and made the computer model for the rear diffuser for the Cadillac CTS-V coupe race car," he said. "I designed and built the model of it in two days, actually. I just did the computer model and from that they made the mold for it and then they laid the carbon fiber on it and then they put it on the car."

In high school, he was an intern at General Motors, where he first started learning how to design a car.

"It was actually with some of the GM designers," he said. They taught me how they do it at work and ever since then I kind of developed a connection with them and I think it'd be really fun to do that and GM has a lot of different types of vehicles as well," he said.

Last semester, he was also part of the Michelin Challenge Design, in which he designed a pickup truck and a wheel and tire to go with the vehicle. He was named semi-finalist and his work was shown at the Michelin booth at this year's NAIAS.

Before he could drive, Zastrow had his mother drive him to local car dealerships and drop him off, where he'd spend time there and became friends with a lot of the car salesmen and dealers.

"After awhile, they asked me to help them out," he said. "I ended up doing car shows for Lamborghini and Maserati and Bentley," he said. "Once in a while, I would get to drive those to the show and back."

Zastrow would help set up the exhibits for the show and take them down.

"Anything that they needed done, I was there to help them out," he said.

With the experience he's had under his belt, Zastrow said he one day hopes to be a designer for GM.

"I see a big opportunity in the civilian market of cars," he said.

GM Performance Parts Sponsors 'LSX Challenge'

GRAND BLANC – GM Performance Parts (GMPP) continues to be a major player in national motorsports endeavors.

That's because GMPP last week announced the LSX Challenge Series. It is a four-race points drag racing series for the 2011 racing season, culminating with the 5th annual LSX Shootout, to be held in conjunction with the NMCA World Street Finals, Oct. 6-9, in Indianapolis.

The LSX Challenge Series, which also incorporates a car show at each event, represents a major expansion of drag racing with participants using strictly GM production-based LS and GM Performance Parts LSX engines and engine components. Race dates and locations for the 2011 LSX Challenge Series and LSX Shootout include:

- March 18-20 (NMCA season opener), at Bradenton Motorsports Park, Bradenton, Fla.
- April 14-17 (NMRA/NMCA All-Star Nationals), at Atlanta Dragway, Commerce, Ga.
- October 6-9 (NMCA World Street Finals/LSX Shootout), at Indianapolis Raceway Park, Indianapolis.

The other race of the series takes place Sept. 9-11, during the Holley LS Fest, at Beech Bend Raceway Park, in Bowling Green, Ky. An agreement with LS Fest organizers allows racers to follow the rules and classes of the LSX Challenge Series, with points awarded applying to the championship.

"We are thrilled to launch the LSX Challenge Series and bring it to more competitors and fans around the country," said Dr. Jamie Meyer, GMPP product integration manager. "This is grass-roots racing at its finest and most exciting – and we expect it to grow, as more and more racers discover the competitive advantages of LS power."

The LSX Challenge Series will include several racing classes, similar to those used in previous LSX Shootout events, including: LSX Drag Radial, LSX All Motor, LSX Real Street, LSX Rumble (Index), and 5th Gen Camaro Challenge (Index).

Racers competing for the championship must participate in three of the four races, with the LSX Shootout (Indiana) as a required event. The results of each race will be tracked throughout the season in NMCA's Fastest Street Car.

Along with supporting the LSX Shootout series, GM Performance Parts enables racers to compete and win with a growing range of LSX maximum-performance crate engines and engine parts.

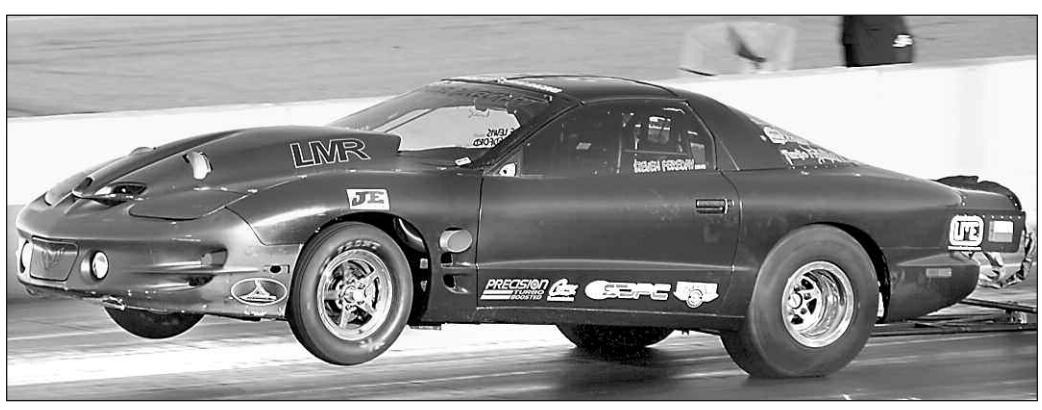
The parts are suited for drag racing and are designed to support engines making 2,000 horsepower, or more, with supercharging, turbocharging or nitrous. Among them are the LSX Bowtie blocks – including the tall-deck version for building large-displacement engines of up to 500 cubic inches – as well as new drag-race six-bolt cylinder heads, intake manifolds and forged rotating components.

GMPP personnel will be on hand at all events to answer tech questions and explain the key attributes of the new parts.

Racing and street enthusiasts can also tap the hands-on expertise of technicians from Scoggin-Dickey Parts Center, one of the country's largest GM Performance Parts dealers and installers.

Along with the technical support and parts displays, Scoggin-Dickey will stock popular parts for purchase at the event, in the event racers need a last-minute part to keep them in competition.

GM Performance Parts will award the fastest LS-powered racers at the LSX Shootout event (Indiana) and pay a $250 bonus to any racer who wins his or her category using an LSX Bowtie engine block. GMPP will also supply awards to all racing class and show class winners.



The GM Performance Parts LSX Shootout grows to a four-race series this year. It is dedicated to drag racers using General Motors LS engines.

Retired Army General Speaks at Area Function

by Christine Snyder
Staff Reporter
Tech Center News

Army Lt. Gen. Theodore Stroup, retired, said it was not his first visit to Macomb County, during his address to the Greater Detroit chapter of the Association of U.S. Army (AUSA) Jan. 27, at Macomb Community College south campus in Warren.

Stroup, vice president of education for AUSA's Washington, D.C., headquarters, said his familiarity with metro Detroit goes all the way back to the now-retired Land Locomotion Laboratory at TACOM, where Stroup visited in May, 1962, as a student at West Point.

"I won a design contest at the Academy and my reward was to visit TACOM and make a presentation," said Stroup during his opening remarks. "I was so fascinated with the (innovation) at the Land Locomotion Laboratory, I wanted to be stationed in Detroit."

It didn't work out that way for him, but Stroup said he was as impressed during this visit by the Detroit area defense and automotive industries as he was 49 years ago on that earlier occasion.

Stroup said he had an opportunity to visit some of the prominent local defense industry suppliers during this visit as well.

AUSA is a nonprofit, private organization that educates the public on, and supports, the U.S. Army.

Its Greater Detroit chapter also provides a forum for professional exchange and liaison between the defense and automotive industries.

Stroup talked about the upcoming changes likely as the federal budget, including the Pentagon's budget, is submitted to Congress Feb. 14.

He warned that while health benefits will not be touched for military employees, retirees and their families, it's also quite likely that co-pays for benefits may soon be part of budget cuts.

"Health care has not been run very well as a business," said Stroup. "If you haven't raised rates in 15 years, it's not good business."

Stroup said AUSA remains strong in its stand to protect health care for Army employees, retirees and their families.

He said while some tightening is inevitable, AUSA wants to ensure it is gradual.

"I believe we will have to take diet pills," said Stroup. "There will be changes and change is uncomfortable."

PHOTO: CHRISTINE SNYDER

Lt. Gen. Theodore Stroup, Jr. (ret.), left, with Charles Gripton, Association of United States Army Greater Detroit chapter first vice president, at Macomb Community College's south campus.

'Talking Cars' Becoming Industry's New Reality

By KEN THOMAS
Associated Press

WASHINGTON (AP) – Could "talking cars" save lives?

Auto companies are developing safety systems using advanced WiFi signals and GPS systems that could allow vehicles to communicate with each other on the road. The cars could then send messages to warn their drivers about potential crashes.

Ford Motor Co. is demonstrating the technology for policy makers and journalists in advance of the Washington Auto Show in the nation's capital. The technology sends out multiple messages per second about the vehicle's location, speed, brakes and steering.

If a vehicle detects a potential hazard, it can warn the driver. The technology aims to prevent collisions involving a car changing lanes, approaching a stalled vehicle, or heading into an intersection in which another car ignores a red light or a stop sign.

"We really see a safety opportunity here," said Mike Shulman, technical leader for Ford Research and Advanced Engineering.

Auto companies have been working on the technology for nearly a decade. Several automakers are part of a consortium sharing information on the crash avoidance systems, including General Motors, Toyota, Daimler and others.

The systems, which warn drivers through beeping sounds and flashing red lights at the base of the dashboard, are still 5 to 10 years from being deployed into America's car fleet. But Ford officials said the technology, if installed on enough vehicles, could reduce the more than 30,000 people who are killed each year on the nation's highways.

The government has touted the intelligent vehicle systems. In October, the National Highway Traffic Safety Administration said the vehicle-to-vehicle communication could potentially address about 4.3 million vehicle crashes, or about 4 in 5 crashes involving drivers who are not impaired by drugs or alcohol.

Some crash avoidance systems have used radar systems positioned in the front or back of the vehicle. Ford said the GPS/WiFi systems are less costly and can detect movements surrounding the vehicles, including conditions along winding roads where a driver's vision might be obstructed or in side crashes involving a car that barrels through a red light.

The broad availability of GPS and WiFi, meanwhile, could help car companies eventually install the technology on vehicles already in the fleet, Ford said.

To showcase the technology, auto companies plan to hold driving clinics next summer to let consumers experience the intelligent vehicles. Car companies and the government are developing standards and hoping to complete research by 2013 and plan for future deployment.

"This technology is an opportunity to help create a future where millions of vehicles communicate with each other by sharing anonymous real-time information about traffic speeds and conditions. This new world of wireless communication will make transportation safer," said Peter Appel, administrator of the Transportation Department's Research and Innovative Technology Administration.