GM Milford Hosts Dynamics Testing For Student EcoCAR Competitors

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U.S. Auto Scene

The auto dynamics phase of the ongoing EcoCAR student car competition concluded at the GM Milford Proving Ground last week.

As you read this, the same set of 16 student cars that were at Milford for most of last week are, this week, in Washington, D.C. – including a White House visit on Tuesday.

Officially called "EcoCAR: The Next Challenge," the big car renovation project brings together 16 universities and their students, all of whom are tricking out GM-provided vehicles but with 21st century fuel economy advances built in in lieu of bling.

"If you look at what we're trying to do from a corporation point of view, it actually goes much further than this competition," observed GM's Michael "Micky" Bly, executive director of Global Electrical Systems, Hybrids, Electric Vehicles and Batteries.

"We honestly believe that there is a considerable lack of future growth of students that want to get into STEM – Science, Technology, Engineering and Math.

"And we've gone down a pathway of trying to take a holistic approach of not only working with young kids with Lego leagues and FIRST Robotics, which has been around for a number of years to help kids learn the fundamentals of a competition environment in a technical manner.

This is where GM's numerous partners on the EcoCAR project, led by the U.S. Department of Energy, come into play.

"Continuing, how do we get educational understanding and interest into the college area?

"We've worked with the DOE for over 15-18 years now in competitions like this, starting from the early days of Ethanol Challenges, Methanol Challenges, you name it, of alternative fuels.

"DOE has a specific need of understanding sustainability from a policy point of view, and we have a very important need of policy introduction.

"So what does GM get out of it? We get out of it a lot – a great relationship with the Department of Energy and the 20-30 other key sponsors with us. We get a great relationship with the administration and then finally we get access to the best and brightest students in the university system in North America."

All of which brings Bly, GM, the DOE and 16 student cars to industrial Building 16 on the campus of the Milford Proving Ground.

There, the competition challenged those 16 teams gathered from across North America to reduce the environment impact of vehicles by minimizing the vehicle's fuel consumption, petroleum use and emissions, while maintaining its utility, safety and performance.

The goal for the students is to design and build advanced propulsion solutions that are based on categories from the California Air Resources Board (CARB) zero emissions vehicle (ZEV) regulations.

Students are encouraged to explore a variety of solutions including electric, hybrid, plug-in hybrid and even hydrogen fuel cells.

In addition, they incorporate lightweight materials, improved aerodynamics and utilize alternative fuels such as ethanoll, hydrogen and biodiesel.

Using a real-world engineering process modeled after GM's Global Vehicle Development Process, teams have integrated their advanced technology solutions into a vehicle donated by GM.

The GVDP is the modeling simulation process currently used to develop all of GM's mainstream vehicles.

This real-world approach gives students valuable hands-on experience in engineering practices and resource allocation.

The EcoCAR competition is unique for its focus on modeling and simulation, as well as subsystem development and testing, rather than just hardware modifications.

Said Bly, "We have a three- or four-year exposure to universities, to their students and what they have to offer GM.

"Think of it almost a 'three-year (job) interview' for some of these students.

"We know these students by their first names, we know what classes they're taking, we have mentors assigned from GM to go to the schools and work with them, so we get to know them intimately.

"It's much different than a one-hour interview at a college or university when you see 200 students coming through for interviews.

"So we have a three-year interview process with these students . . .we see their work ethic, we see their leadership skills."

EcoCAR: The Next Challenge was established by the DOE and General Motors and is being managed by DOE's Argonne National Laboratory in Illinois.

At Building 16, a number o GM and Argonne engineers were available for the students to ask questions and engage in discussions.

GM senior executive Mary Barra issued the following statement in the EcoCAR event program:

"Throughout the competition," she writes, "these 16 universities have gone from researching and selecting propulsion technologies to integrating their subsystems into Chevrolet-donated vehicles.

"In year two, teams tested their "mule vehicles" at our Desert Proving Grounds in Yuma, Ariz., and then presented their work to judges in San Diego. In the final stage, the teams meet at our company's Milford Proving Ground where their vehicles will undergo tests that mimic traditional testing that is done on GM cars."

PHOTO: GERALD SCOTT

The Rose-Hulman University entry amidst all the hubbug inside Building 16 at the GM Milford Proving Ground as part of the ongoing EcoCar competition.

Ford Continues to Push Its V2V Auto Technologies Into the Marketplace

DEARBORN – Ford Motor Company is hosting Europe's most influential safety leader to discuss how to bring intelligent vehicle technology to global customers quicker and more affordably.

Ford is leading research and working with automakers and safety leaders globally on a standardized platform for the advanced wireless systems that can allow vehicles to "talk" to each other to reduce crashes and congestion.

Dr. Andre Seeck, president and chairman of the board of directors, European New Car Assessment Programme (Euro NCAP), will tour Ford's Research and Innovation Center in Dearborn and participate in discussions centered on intelligent vehicle research and other advanced safety technologies the company plans to introduce globally.

"Intelligent vehicle technology has the potential to significantly reduce crashes. We want to work with Ford and others who are leading development of this technology to harmonize the underlying standards and requirements on a global level," said Seeck.

Ford researchers are developing advanced crash avoidance systems that use GPS technologies and advanced Wi-Fi signals, or dedicated short-range communications, on a secured channel allocated by the Federal Communications Commission to create intelligent vehicles that communicate with each other in traffic and help drivers avoid or mitigate crashes.

In addition to serving as president of Euro NCAP, Seeck also is head of Vehicle Technology with the German Federal Highway Research Institute (BASt).

"Dr. Seeck has strong influence on safety globally, so we are excited to work with him on this next frontier of safety," said Jim Vondale, director, Ford Automotive Safety Office.

"Ford has been a pioneer in safety technology for many decades. Now we are leading the development of crash avoidance technologies, including our intelligent vehicle research, to help drivers avoid crashes in the first place."

Ford led the industry in developing new safety technologies, including seat belts in the 1950s, airbags in the 1980s and today with the industry's first rear inflatable safety belts to help protect occupants in crashes.

Ford is partnering with other automakers and governments globally to create a common language that ensures all vehicles can talk to each other based on a common communication standard.

Ford and other global vehicle manufacturers need harmonized standards in order to support their global vehicle platforms and to develop reliable, cost-effective wireless systems.

In the U.S., this public-private partnership will include the world's first government-sponsored driving clinics beginning in summer 2011, for which the company will contribute two prototype Ford Taurus sedans.

The U.S. Department of Transportation (DOT) Intelligent Transportation Systems (ITS) Joint Programs Office will sponsor the research conducted by a coalition of automakers organized by the Crash Avoidance Metrics Partnership (CAMP), which is a joint research group founded by Ford and General Motors. The partnership is working to develop inter-operability standards in advance of completing the research phase in 2013.

In Germany, Ford is collaborating on a wireless research project with other automakers and the government in an effort to address congestion-related traffic safety issues. The Safe and Intelligent Mobility-Test Field Germany research project, which runs through 2012, is a 400-vehicle field test to evaluate feasibility and scalability of wireless systems in the real world.

"We must develop these ITS standards now while the technology is being researched and developed or we will end up with a variety of standards and vehicles that cannot talk to each other from region to region," Vondale said. "Failure to develop globally harmonized standards would delay deployment, decrease reliability and unnecessarily increase costs."

2011 EyesOn Design Car Show Offers Day-Long Tour of Lingenfelter Autos

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• Thursday, June 16 – Eve of Eyes, from 6 p.m. to 12 midnight on the campus of Lawrence Technological University in Southfield, this is a chic designers' night tailored to the design community by celebrating the past, present and future of design greatness. Ticket prices are $40 per person or $25 with student I.D.

• Friday, June 17 – Vision Honored, a prestigious black-tie event for design leaders and the automotive community, celebrating the contributions and accomplishments of the Lifetime Design Achievement Award recipient, for 2011, Walter de'Silva, Head of Volkswagen Group Design.

This event runs from 6:30 p.m. to 11 p.m. at the Ford Piquette Avenue Plant in Detroit. Tickets are $150 per person or $1,000 per table. Vision Honored is sponsored by Lear/Volkswagen Group.

• Tour the Lingenfelter Collection – the private car collection of local auto entrepreneur Ken Lingenfelter has been described as the best such car garage east of Jay Leno's in California.

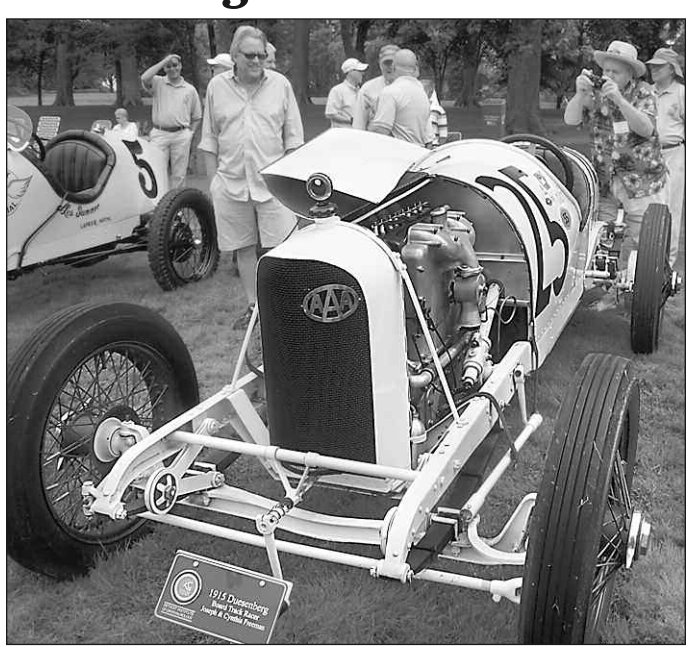
Located in a warehouse in Brighton, the Lingenfelter Collection has something for everyone in terms of Big Three muscle cars all the way up to expensive Bugattis and Porsches. It runs from 9 a.m. to 4 p.m.

EyesOn is offering a $15 /person ticket, or a "combo" ticket that includes admission to the formal EyesOn Design car show itself.

Hessburg expects the 2-for-1 combo ticket to do well this year, especially at only $20 per unit.

• Sunday, June 19 – EyesOn Design Automotive Design Exhibition, at the Edsel & Eleanor Ford House in Grosse Pointe Shores. It's $20 per ticket with free entry for active duty military personnel with I.D. and children 12-and-under when accompanied by an adult.

Hessburg observed that this will be the first EyesOn Design car show since the death of Chuck Jordan, the GM design pioneer who helped found the show more than 25 years ago together with Ford's Jack Telnack and Chrysler's Tom Gale.



The big EyesOn Design car show returns to the Edsel & Eleanor Ford House on Father's Day, Sunday, June 19. An entire weekend of car activities are planned around the main event.

Ford Markets Its Focus Titanium

DEARBORN – As Hip-Hop and R&B music enthusiasts patiently wait for the "BET AWARDS 11"to air, Ford has kicked off a sweepstakes that will award one lucky viewer the keys to a 2012 Ford Focus Titanium as part of The BET AWARDS Ford Focus Sweepstakes.

The sweepstakes, which kicked off late last week, ends at 8 p.m. EST on Sunday, June 26, and incorporates the use of Twitter as part of the final qualification process.

"Our integration into the "BET AWARDS 11' is the latest example of our commitment to connecting with young urban adults as part of our efforts to heighten awareness for the all-new Ford Focus," said Shawn Lollie, Ford manager, Multicultural Marketing.

"The opportunity to not only showcase, but to also give away, a Focus during one of the top five cable award show programs was a natural fit for us. With the "BET AWARDS 11" partnership we are able to reach one of our core audiences for the Focus with an event that is relevant to them and in a manner that is truly unique to the Ford brand."

Fans 18 and older can register for the BET Awards Ford Focus Sweepstakes by visiting www.fordurban.com or www.bet.com/FordFocus through June 26, 2011, for the chance to win the 2012 Focus Titanium. Official rules and entry details are available at www.bet.com/FordFocus.

Unlike other Ford vehicle sweepstakes conducted with BET, The BET Awards Ford Focus Sweepstakes will incorporate for the first time the use of Twitter as part of the final qualification process for selecting the winner.

Once the sweepstakes closes, BET will send out a message using Twitter to all qualified entrants confirming their eligibility along with the official hash tag to tweet about the "BET AWARDS 11".

Ford Honored for Wireless / SYNC

DEARBORN, Mich., June 7, 2011 – Ford has been honored by Progressive Manufacturing (PM) for its industry-first use of Wi-Fi provisioning to deliver Ford SYNC software wirelessly to vehicles equipped with MyFord Touch driver connect technology as they are being built.

The new on-the-assembly-line Wi-Fi capability took home an Operational Excellence Award during the 2011 PM100 Award program in May, with Ford joining an elite group of diverse manufacturers in the Operational Excellence category, including Lockheed Martin and Chevron.

"We are pleased that one of our latest innovative manufacturing techniques has been recognized by Progressive Manufacturing," said Linda Cash, director, Vehicle Operations Manufacturing Engineering.

"Wi-Fi installation for complex, software-intensive systems such as Ford SYNC and MyFord Touch makes rapid globalization – with the highest quality and most efficient, cost-effective processes – a reality for Ford today."

The distinguished PM100 Award program honors manufacturers that have transformed themselves through the use of information technology, recognizing work that delivers competitive advantages and demonstrates a company's mastery within at least one of eight core disciplines.

Those disciplines are Operational Excellence, Customer Mastery, Innovation Mastery, Data and Integration Mastery, Training and Education Mastery, Business Model Mastery, Supply Network Mastery and Leadership.

Ford has been methodically transforming its manufacturing operations based on a nimble, flexible, technologically advanced model that uses reprogrammable tooling in body shops, standardized equipment in paint shops and a common-build sequence in final assembly, enabling production of multiple models in one plant.

By 2012, 100 percent of Ford North American assembly plants, for example, will have some degree of flexibility embedded in their daily operation. Currently, Michigan Assembly Plant, home of the Ford Focus and one of the plants using Wi-Fi provisioning, is the most flexible Ford facility in the world.

Using the Wi-Fi provisioning, Ford can store many different SYNC configurations for global market-specific features, such as languages and services, as software on a computer server and wirelessly install it on a common, basic SYNC hardware module via access points set up on an assembly line.

This innovative software delivery technique eliminates the need for building, stocking and storing multiple SYNC hardware modules to address the globally diverse Ford vehicle platforms, thus reducing manufacturing complexity, improving quality and saving cost.

"As we began developing different levels of MyFord Touch driver connect technology, we initially proposed unique SYNC software modules for each possible vehicle configuration – resulting in more than 90 individual parts numbers," explained Tim Geiger, a Ford SYNC architecture engineering manager and manager of Global Client and Security Engineering.

"Using wireless software installation via Wi-Fi gives us the ability to stock just one type of module loaded with a basic software package that can be easily modified for individual markets and as system updates occur."

Wi-Fi provisioning, for example, will allow Ford to easily tailor SYNC software for the globally manufactured Focus, built on three different continents.

Next year, SYNC launches on Focus in Europe, followed by introduction in the Asia Pacific markets. Each region will have customized SYNC software wirelessly delivered to Focus vehicles as they are built on the assembly line.

To date, Ford is using Wi-Fi provisioning at Michigan Assembly as well as at the Oakville, Ontario, assembly plant where Ford Edge and Lincoln MKX are built, and at Chicago Assembly, home of Ford Explorer. Several other assembly plants around the world are also being equipped with the technology.

Since its initial plant implementation, the wireless on-the-line method has delivered 13 distinct software releases to more than 213,000 vehicles and is achieving a flawless success rate.

"We have had a 100 percent success rate with the line provisioning for SYNC-equipped vehicles," said Geiger.

"We have also been able to quickly deliver and provision newly built vehicles with new functionality, service packs and updates as well as reprovision existing vehicles with updates that have not yet left the plant."

Auto industry experts have said that although GM has a successful telemarketing service in its OnStar unit, Ford may be doing the best job of incorporating modern technologies into the cockpit of modern-day automobiles, cars and trucks.