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T. C. Gets Another Wind Tunnel

General Motors broke ground March 13 on a new \$30 million reduced-scale wind tunnel to expand its aerodynamic testing facility on its Warren Technical Center campus.

The investment will improve test capabilities and support of aerodynamic development, critical to GM's global CO2 compliance strategy, said GM spokesperson Jennifer Ecclestone.

The new facility is for GM's reduced-scale, or one-third-sized, clay models that form the initial part of the product development cycle.

"We currently have the ability to test these models in our wind tunnel on the Warren Tech Center Campus, but must cycle between the reduced-scale and full-size models in our testing," Ecclestone said.

"This will provide us another facility with which to do the earlier onset aero testing in the product development cycle."

"This tunnel will feature one of the largest and most state-of-the-art features of wind tunnels, which is the moving ground plane that will simulate full driving conditions, enabling higher fidelity aerodynamic testing."

The ground plane is a raised false level that isn't as thick as an actual floor.

The new facility will add a 50 percent increase in reduced-scale testing capacity, a 25 percent increase in full-scale testing capacity – and create up to five

new jobs, Ecclestone said. "This facility is not replacing any of our current wind tunnels,

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GM officials, from left, Ed Welburn, John Calabrese and Jim Federico

2015 Cadillacs Add 4G LTE, CUE Collection Suite of Apps

Thanks to smartphone technology, people are more connected to each other than ever. And why should it be any different for today's smart cars?

To that end, Cadillac will add enhanced in-vehicle connectivity with the addition of OnStar 4G LTE and the CUE Collection suite of applications. The 2015 ATS Coupe will be among the first Cadillac models equipped with both advanced technologies when it goes on sale this summer, said GM spokesperson Brian Corbett.

OnStar 4G LTE is a faster and more reliable connection for in-vehicle applications compared with competitive 3G systems, Corbett said. A built-in connection allows passengers to access online content and information through a Wi-Fi hotspot, which can accommodate up to seven devices.

The new, faster vehicle connection also powers CUE Collection, a new in-car app marketplace that will be standard on many 2015 Cadillac vehicles with CUE infotainment, Corbett said. Accessible via an icon on the eight-inch LCD touch screen, the CUE system can organize, update or delete user-downloaded apps throughout the life of the vehicle.



New Cadillac interface

Expected initial apps include iHeartRadio, The Weather Channel, NPR and Slacker Radio.

Cadillac CUE is the centerpiece of the ATS Coupe's in-vehicle technologies and is available on base models and standard on Luxury, Performance and Premium ATS Coupes, Corbett said.

For 2015, CUE includes new enhanced content such as a Text-to-Voice feature for smartphone users with Bluetooth profile (M.A.P.), which reads incoming texts through the car's speakers.

Users can also create and save their own preset responses when the vehicle is in Park.

The Text-to-Voice feature requires a compatible smartphone with Bluetooth profile and appli-

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FIRST Robotics Occupies Students with Differening Talents

by Jim Stickford

The aim of FIRST Robotics contests are twofold – give students hands-ons science experience and help educate the next generation of engineers.

Gail Alpert, president of FIRST in Michigan, the organization that handles the competitions in the state, said that FIRST got its start in Manchester, N.H., back in 1992.

Michigan saw its first FIRST groups in 1995.

"The contests started in '92 with just a handful of teams," Alpert said. "I've been involved since 2000. I am not an engineer.

I'm actually a realtor and an attorney.

"My son Jeffrey," she said, "was a member of the team, Las Guerillas, out of the International Academy in Bloomfield Hills. He had originally wanted to become a doctor, but his participation in the FIRST competitions steered him toward mechanical engineering."

Alpert said the FIRST Robotics competition combines "the excitement of a varsity sport with hands-on training in science and technology to help high school students discover how rewarding a career in engineering or technology can be."

Remote-controlled robots, piloted by students go head-to-head in short games on the floor of a sports arena, battling it out to earn points during a two-minute round, Alpert said.

Alpert said the goal is for three teams, or an alliance, to try to pass a ball back and forth between their robots and try to score points against another alliance of three teams. She said the competition is kind of a mix of basketball and soccer, but with robots.

Students on FIRST teams learn from and play with the "pros" – professional engineers who donate their time to work side-by-

side with students to help design and build the sophisticated competition robots.

This gives FIRST students an insider's view of a career in science, engineering and technology not possible in a normal classroom setting. Plus, every student on a FIRST robotics team can turn "pro" by becoming engineers themselves.

Alpert said that Michigan, through the support of companies like GM, Ford and Chrysler – as well as with support from Gov. Rick Snyder – is well-represented within FIRST.

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SAE CEO David Schutt

World Congress Will Focus On Technologies

by Jim Stickford

Society of Automotive Engineers CEO David Schutt gave members of the Detroit automotive press corps a preview of what will be at the group's 2014 World Congress, which will be held in Cobo Center April 8-10.

Schutt spoke to the Automotive Press Association at a special luncheon March 18 at the Detroit Athletic Club.

He described the organization, its makeup and purpose, then added that the SAE has scientific papers going back to 1906, an invaluable resource to members doing research.

"We're a global organization because that's where the automotive industry is going these days," Schutt said. "We offer life-long learning programs aimed at the professional engineer and STEM programs aimed at children."

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Cardinal Mooney High School's Robosapiens line up after winning the Center Line district FIRST Robotics event March 1.

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