TRC® TRACKS

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TALK ABOUT A SPEEDING BULLET!

Did you know that a rocket could propel a bullet? Imagine yourself being only one of less than five-dozen people in the world who have been officially recognized for driving over 300 MPH. How thrilling would that be? Just ask Roger (The Rocket) Schroer the next time you see him! Roger is a TRC Inc. employee whom you probably know if you have participated in one of the performance driver training classes he developed for our customers.

On loan to The Ohio State University's 2004 Buckeye Bullet Electric Land Speed Racing Team, Roger is the only non-student on the undergraduate team that built the electric race car. The Bullet, an enclosed-wheel streamliner, was built by students of The Ohio State University's Center for Automotive Research. The Bullet set the U.S. Electric Land Speed Record (USELSR) for electric-powered vehicles at 256.894 MPH in October 2003. Equipped with a new electric powerplant in its qualifying runs in August 2004, the Bullet shattered that record with an exit speed of 314.925 MPH! The official USELSR qualifying speed of 308.317 MPH was attained for the Bullet's peak-timed fifth mile as certified by the Southern California Timing Association and Bonneville Nationals Inc. A return trip to Bonneville is planned by the team in mid-October.

Led by student Isaac Harper, the Bullet is one of a number of ongoing student motorsports research projects at Ohio State. You can find out more about the Bullet at www.BuckeyeBullet.com and going to a link on that site named "Road to Bonneville."

GROUNDWORK STARTED ON DYNAMIC HANDLING COURSE

Transportation Research Center Inc. (TRC Inc.) is proud to announce the groundbreaking of our new passenger vehicle Dynamic Handling Course (DHC). Designed for vehicle development and engineering handling, the asphalt DHC is about 1.75 miles in length and can be run in both directions. The course comprises a variety of slow, medium, and high-speed corners along with slight elevation changes and turns of varying camber. Noted racetrack designer Alan Wilson, who is responsible for tracks in North America and Asia, designed the course.

TRC Inc.'s President Rick Gildow stated, "Transportation Research Center has long been known as a premier proving ground with its 7.5 mile track, 50-acre Vehicle Dynamics Area and Impact Laboratory; however, with the addition of the DHC, we can expand our leadership position as the premier facility for vehicular handling research and development testing." The DHC is slated for completion in late summer of 2005.

SCIENCE...OR SCIENCE FICTION?

Are the technologies for reducing exhaust and evaporative emissions based on science, or science fiction? We'll concede to both. There are many inventors working on methods and materials intended to help reduce emissions, and TRC Inc. can help them determine if they have a viable product or a pipe dream. In the pursuit of these reductions, it is important to look at all types of internal combustion engines to ensure they are all emitting as few pollutants as possible.

Traditionally, motorcycles are more performance-oriented than are automobiles, and feature carburetors with no exhaust after-treatment. A recent emissions lab study looked at the measurement of exhaust and evaporative emissions of typical motorcycles. One goal was to measure the evaporative emissions source, and another was to evaluate the effect of different fuels and emissions control technologies. Almost two orders of magnitude in improvement in emissions for unburned hydrocarbons and carbon monoxide can be made though the use of exhaust after-treatment. When you consider there are 33,000,000 new motorcycles produced annually, exhaust after-treatments (like catalytic converters) will go a long way to help clean our atmosphere. Please contact us to discuss this study that included: optimization of fuel injection and ignition timing; emissions testing over a transient driving cycle; and evaporative emissions testing of a converted fuel injected unit.

2005 AUTOMOTIVE NEWS PACE AWARD ACCEPTING APPLICATIONS

Automotive suppliers seeking a competitive edge can demonstrate industry excellence with a 2005 Automotive News PACE (Premier Automotive Suppliers' Contribution to Excellence) Award. Open to suppliers that contribute products, processes, materials or services directly for the manufacture of cars or trucks, the prestigious PACE Award is presented by Automotive News, Capgemini and Transportation Research Center Inc. (TRC Inc.).

The Automotive News PACE Award is recognized around the world as the industry symbol of innovation, technological advancement and business performance. While finalists and honorable mention awardees reap a noteworthy level of distinction and recognition, the application process itself is a valuable opportunity for companies to analyze and improve operations and relationships with key constituents.

For complete information, visit www.automotivenews.com/pace, www.us.capgemini.com/PACE or www.trcpg.com/pace.htm.

THE VALUE OF 30 YEARS

By the time we reach 30 years of age we have matured enough to be taken seriously, yet are still youthful enough to be full of energy and curiosity. Thirty years in the workplace arms us with the experience and wisdom to lead. Being married for thirty years means we have become adept at respecting others, honed the skills of listening and compromise, and are admired for our knowledge, tenacity and drive. Thirty years in a successful business means all of those things, plus doing them very well. Doing things well is the key to the 30-year success of Transportation Research Center Inc..

As TRC celebrates 30 years of operation, we reflect with a great deal of respect on the 5,000 employees who helped develop TRC into one of the world's most respected automotive testing facilities. Sheer numbers give an interesting insight into our 30 years:

- Just *one* test driver accumulates enough miles *annually* to circle the earth *three times*...or drive to the moon and back *three times over!*
- We have crashed over *5000* brand-new cars, trucks, motorcycles and buses...*intentionally*!
- We have bought enough duct tape to circle our 7.5-mile test track *four* times.
- Our test drivers' combined mileage accumulation is equal to the distance to the sun and back.
- Just *one* test driver pumped 2,500 tanks full of gasoline in 30 years – that's equal to one test driver wearing out 500 cars.

What a privilege it has been for each of us at TRC to have provided automotive testing services to the world's finest vehicles and transportation systems. Thank you to our testing partners for 30 successful years.

FREQUENT EXPO MILES

This fall will be a very busy travel time for our staff members with many colleagues attending conferences, engineering organization meetings and expositions. We view our participation in industry events as both a responsibility to share our knowledge and an opportunity to meet directly with our customers and suppliers.

Three papers will be presented at the **SAE Commercial Vehicle Engineering Congress and Exhibition** held in Suburban Chicago October 26-28, 2004. *"The Effects of Foundation Brakes on Class-8 Tractor Wet and Dry Stopping Performance," "Effects of Tractor Foundation Brakes on ABS Operating Regimes and Vehicle Stability on High and Low-Coefficient Surfaces,"* and *"The Effects of Foundation Brakes on Class-8 Tractor-Semitrailer Combination Stopping Performance on Wet and Dry Surfaces"* all authored by TRC Inc.'s Ashley L. Dunn, Richard L. Hoover, and Scott B. Zagorski, who are assigned to National Highway Traffic Safety Administration's Vehicle Research and Test Center. We will also be exhibiting at the show.

From October 25 – 28, 2004, we will exhibit at the **SAE Powertrain & Fluid Systems Conference & Exhibition** in Tampa, Florida, which will assemble powerplant design engineers and engine fluid experts in an open forum to exchange technical information, share ideas, and address challenges.

From October 27 – 29, 2004, we will be exhibiting at **Automotive Testing Expo North America 2004** in Novi, Michigan. This show is extremely significant for testing engineers, as this is the only show in North America that attracts over 300 companies that specialize in automotive testing. Please mark your calendars for these important industry events.

TRACKS is a publication of Transportation Research Center Incorporated. For more information, contact Teri Elliot (ext. 354) or Jeff Sprague (ext. 349), Marketing, Transportation Research Center Inc., East Liberty, Ohio 43319-0367; phone (937) 666-2011; fax (937) 666-5066; www.trcpg.com.