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1. Edwards Announces Mobility Initiative at TTI


Edwards secured $1 million in funding for the initiative, which will house a traffic management system at TTI’s TransLink® Laboratory, in partnership with the cities of Bryan and College Station, Brazos County, Texas A&M University, the local district of the Texas Department of Transportation, the Bryan/College Station Metropolitan Planning Organization and TTI.

“This [Bryan/College Station Mobility Initiative] is about growth, it’s about quality of life for our families, it’s about air quality, and it’s about safety,” Edwards said. “Improving roads and easing congestion are vital to Bryan/College Station.”

The population of Brazos County has nearly doubled in the last 30 years to 170,000 residents. In addition, Texas A&M has experienced almost a 60 percent increase in visitors over the last 10 years. Annual visitors to the Bryan/College Station community total about 3.7 million each year.

“If we are not visionary, we will be like Austin in the near future,” said College Station Mayor Ben White, who grew up in the Austin area and knows how quickly congestion can become a major problem.

The TransLink® Laboratory at TTI will be used to monitor traffic with cameras set up in key locations in the community. It will also help with the coordination of traffic signals, data collection and special events planning. Area traffic is especially congested during the numerous Texas A&M sporting events throughout the year.

“We have the equivalent of a big-city traffic operations system here at TTI,” Agency Director Dennis Christiansen told members of the news media and local dignitaries.
attending the event. “Although it will not take the place of new road construction, the system will help increase capacity on area roadways by up to 20 percent.”

Edwards told the crowd that the cooperation among the entities that make up the Bryan/College Station Mobility Initiative could become a model for other small city regional transportation planning efforts.

Following the news conference, Edwards, along with members of the news media, attended a crash test that was held on TTI’s Proving Grounds located at the Riverside Campus. He witnessed a pickup truck crashing into a concrete barrier at 62 miles per hour. “This was my first crash test,” Edwards said. “It’s amazing the work that the researchers are doing for the safety of our motorists. TTI is truly an American treasure.”

View/read the KBTX report: http://www.kbtx.com/local/headlines/38723797.html
2. TTI Study Reflects Major Driver Changes in Texas

Texans drove less for eight consecutive months of 2008 compared to the same month the year before, a TTI study has determined. However, drivers hit the road in force in December thanks to much lower gasoline prices.

“It’s the first time we’ve seen eight consecutive decreases in at least a decade,” says Associate Research Scientist Dave Ellis, who has been analyzing raw gasoline consumption data from the Texas Comptroller’s Office. He has reviewed the figures — and adjusted them for population increases and other factors — going back to 1997.

“It’s clear that gasoline price increases last year influenced driving behavior in Texas,” Ellis says. “History has taught us, however, that once prices moderate, motorists tend to drive more. That’s exactly what happened in December when gas prices dropped 44 percent from December 2007.”

As shown in the table below, Texans bought less gasoline from April to November than in the same month the year before. December gasoline consumption bucked the trend, shooting up nearly 4 percent.

**Gasoline Consumption**

<table>
<thead>
<tr>
<th>2008</th>
<th>Percent decline/increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>April</td>
<td>–2.7%</td>
</tr>
<tr>
<td>May</td>
<td>–0.4%</td>
</tr>
<tr>
<td>June</td>
<td>–4.4%</td>
</tr>
<tr>
<td>July</td>
<td>–1.2%</td>
</tr>
<tr>
<td>August</td>
<td>–5.2%</td>
</tr>
<tr>
<td>September</td>
<td>–4.1%</td>
</tr>
<tr>
<td>October</td>
<td>–0.7%</td>
</tr>
</tbody>
</table>
November -0.3%
December +3.8%

“As expected, the figures show that Texans chose to drive less during the summer months when gasoline was near $4.00 per gallon, and a higher percentage of driving is for non-essential trips,” Ellis points out. “The big decline in September could be attributed to Hurricane Ike, which affected a large part of the state.”

By October — as gas prices dropped below $3.00 per gallon — gas purchases increased but were still less than the previous October. By December (the last month figures are available), gasoline prices dropped to $1.63 per gallon on average.

“The first quarter of 2009 will give us a lot more clues about driving behavior,” Ellis says. “As these gasoline prices level off, it will be interesting to see if Texans drive more or less than the previous year. I believe the severity and length of the recession could be the determining factor.”

3. TTI Anniversaries

5 Years

Reza Ashtiani, Graduate Assistant Research (BDV)
Jennifer Barry, Office Associate (HTP)
Marsha Anderson Bomar, Senior Research Scientist (ATOG)

10 Years
4. Cherrington Completes Transit Study, Presents Findings

Results of a study examining the sources of state and local funds to support mass transit investments, conducted by the Manager of the Transit Mobility Program Linda Cherrington, was the subject of an informational briefing session by the Texas Senate Committee on Transportation and Homeland Security January 28.

The study, “Nationwide Examples of State and Local Funds for Mass Transit,” was the result of a request by the chairman of the Senate committee John Corona following the 80th Texas Legislature. The project was funded through TTI’s University Transportation Center for Mobility (UTCM).

“I was very pleased to be invited to present the results of the research study,” says Cherrington of her testimony last month. “I got the sense that members of the committee are supportive of proposals to authorize additional local revenue sources for expanded mass transit to meet regional transportation needs in Texas.”

Cherrington’s research documents nationwide examples of funding mass transit and regional rail. The findings provide the requested background information for members of the Senate committee for decisions they face in funding mass transit in
5. Work Zone Clearinghouse Spreads Safety Worldwide

The effort to make highway work zones safer worldwide has led to a Global Road Achievement Award for the National Work Zone Safety Information Clearinghouse, housed and operated by TTI. The International Road Federation award was presented in Washington, D.C., January 12.

“This global award is a great honor for TTI and all of the other groups involved in this endeavor,” says Jerry Ullman, manager of TTI’s Work Zone Program. “We have all come together to make a real difference in making work zones safer.” (An estimated 1,000 people are killed and 45,000 are injured in U.S. roadway work zones each year.)

The National Work Zone Safety Information Clearinghouse is the largest online resource for roadway construction safety. The clearinghouse is a joint effort of the American Road and Transportation Builders Association, the Federal Highway Administration and TTI.

Visitors to the National Work Zone Safety Information Clearinghouse website “can find a wealth of information about crash data, laws and regulations, safety standards, research publications, training courses, and safety products…just about anything related to work zone safety,” says Research Librarian Hong Yu, who maintains the

Receiving an International Road Federation award for their group's work on the National Work Zone Safety Information Clearinghouse are (from left to right) Morris Oliver of the Federal Highway Administration (FHWA), Brad Sant of the American Road and Transportation Builders Association, Joe Toole of FHWA, and Research Librarian Hong Yu and Director Dennis Christiansen of TTI.
website. “If they cannot find what they are looking for on our website, they can always contact us for help.”

Since the site went online in 1998, the clearinghouse has assisted half a million users from every state and 27 countries with a variety of topics related to safety issues in work zones.

**Visit the Clearinghouse website:**

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**6. TTI in the News**

There have been numerous mentions of TTI and our experts in recent media reports. Here are links to some of the stories.

Texas high-speed rail *(Fort Worth Star-Telegram)* Feb. 1

Transportation stimulus *(Washington Post)* Jan. 29

Low-profile concrete barriers *(Discovery Technology)* Jan. 28

Hawaiian transportation modernization *(The Garden Island)* Jan. 23

Channelview teen driving survey *(Texas Cable News)* Jan. 21

Texas legislative issues *(Fort Worth Star-Telegram)* Jan. 18

Safety and higher speed limits *(The Salt Lake Tribune)* Jan. 17
Inauguration congestion (*The Washington DC Examiner*) Jan. 15

Cell phone ban proposed (*KBTX-TV*) Jan. 14

Transportation Forum (*Houston Chronicle*) Jan. 11

County road conditions (*Montgomery County Courier*) Jan. 11

Roadside maintenance study (*Tyler Morning Telegraph*) Jan. 5

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7. Research Project Puts Texas Urban Triangle on the Map

With severe and wide-ranging implications for the future, the results of perhaps the most comprehensive study yet on the Texas Urban Triangle was the focus of the latest University Transportation Center for Mobility’s (UTCM’s) monthly gathering.

“The Texas Urban Triangle is the urban mega-region bounded by the cities of Dallas/Fort Worth, Houston and San Antonio, and it has become one of the most relevant areas in the world,” says Associate Professor Michael Neuman of Texas A&M University’s Department of Landscape Architecture and Urban Planning. “With 17 million people living in this region, it’s the largest populated area of Texas.” By 2030, the Texas Urban Triangle could swell to 25 million residents, Neuman told the crowd attending the UTCM’s Mobility Colloquium.

Neuman, his colleague, Professor Elise Bright, and their Texas A&M graduate students conducted the study, which led to a 140-page report titled Texas Urban Triangle: Framework for Future Growth. They researched key strategic factors shaping the future growth of the mega-region, including current and future needs for water, energy, housing, education, transportation and other infrastructure. The report can be accessed at http://sustainableurbanism.tamu.edu, under the “Projects” link.

“This comprehensive study shows us that without serious planning, the Texas Urban Triangle will have numerous and severe shortages,” says Bright, who is a professor in Texas A&M’s Department of Landscape Architecture and Urban Planning. “Specifically, by 2030, the region will need 50,000 new teachers and 1,800 additional schools and 8,000 new police officers. The area’s projected growth will have a huge impact on water, land and air quality.”

Almost all of the issues they studied have transportation implications. For example, “areas within the Texas Urban Triangle consist of fertile and productive farm land. Do we really want to build roads over it?” Neuman asked. He also showed how Houston’s surface has subsided over 12 feet, due to water pumping from the aquifers.

Michael Neuman and Elise Bright of the Department of Landscape Architecture and Urban Planning at Texas A&M presented the results of their study on the Texas Urban Triangle.
underneath it. Aquifers below Dallas/Fort Worth, he said, have been drawn down 800 feet. “These losses have multiple implications for transportation and other infrastructure investment decisions.”

Because of the region’s size and conflicting needs, Neuman and Bright acknowledge that coordinating planning efforts among the numerous entities within it presents a unique challenge.

“A comprehensive approach is required to tackle these issues,” Bright says. “We need to build political support for future planning. What will the Texas Urban Triangle look like in 20 years if we don’t do anything to guide it?”

8. Lomax to Receive Award from ITE

Research Engineer Tim Lomax has been selected as the 2009 recipient of the Theodore M. Matson Award. The Institute of Transportation Engineers (ITE) award honors outstanding contributions in the field of traffic engineering.

Lomax’s work on TTI’s Urban Mobility Report, and especially the public understanding of congestion as a result, was the key factor in his selection.

The Matson Award, which will be presented at ITE’s Annual Meeting in San Antonio in August, has been awarded since 1957. Matson contributed greatly to the common welfare through the advancement of the techniques of traffic engineering.

In December, Lomax was presented with the Regents Fellow Service Award by The Texas A&M University System Board of Regents.
9. TTI Communications Offers Assistance

If you are including communications services in upcoming project proposals, remember that TTI Communications has boilerplate text available for your use. You’ll find it at http://tti.tamu.edu/groups/program.htm?p_org_code=KDV under “Expertise.” An online portfolio of completed projects is available as well at http://tti.tamu.edu/groups/kdv/portfolio/.

As February and March proposal deadlines approach for the Texas Department of Transportation (TxDOT) Traffic Safety and Research Management Committee (RMC) programs, TTI Communications wants to make sure all researchers are aware of the group’s services, resources and willingness to partner. TTI Communications is happy to contribute to projects needing editorial, writing, graphics, photography or digital media services.

Contact Director of Communications Richard Cole for information.
10. Editor's Corner: Which That Is That?

Recently several people have asked me about the use of “that” and “which” and where to use commas with them. This column gives a quick glimpse into the life of “that” and “which” and how to use them.

First, the short rule of thumb:

- Use “that” with no comma for phrases that give information vital to identifying your subject.
- Use “which” preceded by a comma to identify your subject and provide additional information, which is helpful but not required.

Both “that” and “which” fulfill more than one function. For example, you could say “I would like that test equipment.” Or, “Which test equipment should I use?” Those examples use “that” and “which” in different ways than this column discusses, and those uses are not usually confusing. But — when you use “that” or “which” to start off a descriptive phrase, that’s when it gets tricky.

Restrictive and Nonrestrictive Clauses

- The team selected the measurement test that contained 42 data points.
- The team selected the measurement test, which contained 42 data points.

In the example shown in first sentence, there must have been multiple measurement tests. The restrictive clause, “that contained 42 data points” enables you to identify which specific measurement test the team selected from those multiple measurement tests. That makes it a restrictive clause. In the latter sentence, there was only one
measurement test, and it just happened to contain 42 data points. The phrase beginning with “which” is not vital information, making it a nonrestrictive clause.

- The vehicle, which appears on the screen, met emission requirements.
- The vehicle that appears on the screen met emission requirements.

In the first sentence, you would already know which vehicle met the emission requirements. You would be seeing a picture of the vehicle on screen simply as additional confirmation. The phrase could be left out of the sentence, so the phrase is not restrictive. If you use “that” as in the second sentence, the information becomes essential to identify which vehicle was in compliance — the one shown on the screen — and is therefore restrictive. There would be other vehicles that don’t appear on the screen.

Sometimes using “which” with restrictive clauses is correct, as well. But you’re always right if you steer clear of it.

**Substituting “Who”**

When referring to people, the word “who” can introduce either restrictive or nonrestrictive clauses. Punctuation mirrors “that” and “which” rules to determine whether a “who” clause provides essential information. Clauses introduced without a comma are restrictive, and clauses introduced with a comma are nonrestrictive:

- My sister who lives in Arizona came to town. (In this case, I have more than one sister, so her residence is given to identify which sister visited me.)
- My sister, who lives in Arizona, came to town. (In this case, I have only one sister and her residence is given only for interest.)

Both “that” and “who” are acceptable for clauses related to people. All of the following sentences are correct:
- The team members who stayed late finished the report. (Only some team members stayed late.)
• The team members that stayed late finished the report. (Only some team members stayed late.)
• The team members, who stayed late, finished the report. (All team members stayed late.)
• The engineer that won the award worked for TTI.
• The engineer who won the award worked for TTI.

For More Information

If you’ve got questions about using restrictive or nonrestrictive clauses (also called essential and nonessential descriptors), feel free to contact me. For more information online, here are a couple of resources:

• The Chicago Manual of Style Online: http://www.chicagomanualofstyle.org/ch06/ch06_sec038.html
• Bartleby Books Online: http://www.bartleby.com/64/C001/062.html

Editor’s Corner is written by Rhonda Brinkmann, research editor in TTI Communications. Rhonda is happy to accept requests for column topics.

11. Reminders/Calendar

February 5-7 — 2009 TexITE Winter Meeting
Lubbock, Texas
February 12 — 2009 Texas Motorcycle Safety Forum
   Austin, Texas

February 20 — 402 Safety Proposals Due

February 23 — Semiannual Reports Due to Research Development Office

February 23-25 — 2009 Texas Transit Conference and Mini Expo
   Austin, Texas

February 24 — TTI Blood Drive
   Gilchrist Building, Room 103, 9 a.m.-3 p.m.
   Contact Nancy Stratta

March 16 — RMC Annual Reports Due

March 19-20 — Spring Break

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