



FEDERAL HIGHWAY  
ADMINISTRATION  
TEXAS DIVISION

# State of Texas

## Border Partnership

### *E-Newsletter*

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### **TTI Researchers look to improve North American trade**

Moving commodities efficiently is vital to the economies of North American countries. According to the San Diego Association of Governments and the California Department of Transportation, more than 80 percent of the total trade in North America is accomplished by truck and rail.

In 2005, post-9/11 security requirements, combined with inadequate infrastructure capacity, cost the United States (U.S.) and Mexican economies an estimated \$6 billion in combined gross output. Between 1993 and 2005, Mexican merchandise exports to the U.S. grew by 400 percent (in current dollars), and U.S. exports to Mexico grew by 245 percent.

As the three main producing nations, Mexico, the U.S., and Canada form the trading block for North America. Other trading blocks, like the European Union, have cohesive transportation plans that maximize system efficiencies, which makes doing business across national borders as cost-effective as possible.

Freight transportation provides the means by which goods are moved from manufacturing or ports of entry to the final consumer. Thirteen years after the North American Free Trade Agreement (NAFTA) was ratified, "the big three" are discovering that to compete in the global economy, they need to better communicate their transportation system needs to improve how freight is transported across national borders.

Teaming with the Texas Department of Transportation and the Federal Highway Administration (FHWA), Texas Transportation Institute (TTI) researchers have been working on several projects to improve international trade along the U.S.-Mexico border. The first order of business is to come up with a unified way to measure the time it takes to get from one side of the border to the other.

"This important research will help FHWA consistently and objectively measure system performance," explains Ian Grossman, a spokesman for FHWA. "TTI has the necessary expertise in developing strategies to improve the North American transportation network, and we are excited to partner with them on the border research program."

"Ultimately, we want to create a border congestion index, or BCI," explains TTI Research Scientist Juan Villa. "This would let us identify the impact of congestion at the border." All this begins with the BCI currently under development by TTI researchers. Once a measure for how these discrete transportation systems currently work together is established, improvements can then be made to maximize North America's transportation network efficiencies.

"The BCI will help improve the overall efficiency of the continental transportation system," says Villa. "That, in turn, will make North America more competitive in the world market." For additional information, please see the following web-site: <http://tti.tamu.edu/publications/researcher/newsletter.htm?vol=43&issue=4&article=3&year=2007>

## DHS Tests of Radiation Detectors Were Inconclusive, Report Says

The Department of Homeland Security tests of new radiation detection machines last year did not show whether the costly devices performed well enough to be used as planned at ports and borders to protect the country against nuclear attacks or dirty bombs, according to a new report about the process.

The performance tests were organized by the department's Domestic Nuclear Detection Office, which has been trying to deploy the machines along the borders and at ports in a \$1.2 billion project, despite allegations from government auditors that the office misled Congress about their effectiveness and later conducted flawed tests to show they worked well.

Homeland Security Secretary [Michael Chertoff](#) had said the development and purchase of the machines was a "vital priority" for the department. Officials from the nuclear detection office had asserted the tests -- mandated by Congress before the project was allowed to move forward -- showed they worked well.

But Chertoff called for an independent team to review the program last summer after a [Washington Post](#) article spelled out questions about the project. Last fall, Chertoff put the project on hold, conceding that the machines were not ready for wide use. In the new report, the review team concluded that the testing last year was not able to show whether the machines, known as advanced spectroscopic portal radiation monitors, or ASPs, could "detect and identify actual objects that might be smuggled" into the country, according to portions of the report released by Congress. "Even after collecting all available test results, it was difficult to form conclusions about operational effectiveness," the report said.

The [House Committee on Homeland Security](#) will hold a hearing today about the report and other testing by the nuclear detection office. Among those scheduled to testify is Vayl S. Oxford, director of the office. "While I applaud the Domestic Nuclear Detection Office for its aggressive pursuit of new

detection technologies, I still remain deeply concerned that the systems have not been properly tested and evaluated," said Rep. Jim Langevin (D-R.I.), chairman of the Homeland Security Committee's subcommittee on emerging threats, cybersecurity and science and technology.

At the same time, the [House Committee on Energy and Commerce](#) issued a news release calling on the department to transfer testing responsibilities from the nuclear detection office to an independent group. "We should not spend a single penny to install these machines at our ports and borders until valid testing is done to demonstrate that these costly new machines work significantly better than the existing radiation detectors," said [Rep. John D. Dingell \(D-Mich.\)](#), the committee chairman. The project to buy as many as 1,400 ASPs, which cost about \$377,000 each, was announced in July 2006. A month later, [Government Accountability Office](#) auditors said the nuclear detection office greatly exaggerated the machine's capabilities in a report that spurred congressional approval of the project.

In response to those allegations, Congress mandated that Chertoff take the unusual step of personally certifying that the detectors represent a significant advance over existing detection equipment. With that certification in mind, the nuclear detection office conducted tests in [Nevada](#) early last year.

Those tests were called into question when GAO auditors found that department officials had allowed contractors to conduct "dress rehearsals" and calibrate their machines in anticipation of the tests. The review team's report discounted the auditor's findings that the tests were biased. The team also said it found no evidence the test data were manipulated. <http://www.homelandsecurity.com/2008/03/05/dhs-tests-of-radiation-detectors-were-inconclusive-report-says/>

## DHS Announces TWIC Enrollment Dates for 10 Ports

The Department of Homeland Security said enrollment in its Transportation Worker Identification Credential (TWIC) program will begin at ten more port locations in coming weeks.

The TWIC program ensures that any individual who has unescorted access to secure areas of port facilities and vessels has received a thorough background check and is not a known security threat.

The program started with about 130,000 enrollments in the first four and half months, said Maurine Fanguy, TWIC's program director.

DHS said TWIC enrollment will begin at the following ports on the days listed:

- Marine City, Mich., Wednesday, March 5
- St. Louis, Wednesday, March 5
- Palm Beach, Fla., Thursday, March 6
- St. Ignace, Mich., Thursday, March 6
- Newport News, Va., March 12
- Panama City, Fla., March 12
- San Diego, March 13
- Gulfport, Miss., March 19
- Key West, Fla., March 19
- Traverse City, Mich., March 20

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## Train accidents continue to drop, FRA says

Train accidents have declined for the third-straight year, according to preliminary 2007 data released yesterday by the [U.S. Department of Transportation \(USDOT\)](#).

Last year, accidents were down 13.7 percent compared with 2006 data and 24.6 percent compared with 2004. In addition, crossing fatalities decreased 8.1 percent to 339, highway-rail grade crossing incidents fell 6.9 percent and trespasser fatalities declined 6.2 percent to 486.

USDOT attributes the accident reductions in part to the [Federal Railroad Administration's \(FRA\) National Rail Safety Action Plan](#). Launched in May 2005, the program focuses on the most frequent, highest-risk causes of train accidents, optimizes the use of data to target federal inspection and enforcement resources, and accelerates research initiatives that could mitigate the greatest potential safety risks.

"We are targeting our safety activities on specific problem areas," said Federal Railroad Administrator Joseph Boardman, adding that the two leading causes of train accidents — human error and track — have declined 28.8 percent and 15.7 percent, respectively, since 2004.

FRA expects the safety gains to continue. In 2007, the agency added two automated track inspection vehicles to its fleet, enabling FRA to triple the number of track miles it inspects annually. The agency also approved new Positive Train Control technology for deployment in regular freight-rail service, issued a proposed rule to encourage the use of electronically controlled pneumatic braking systems and launched several grade crossing safety initiatives.

So far in 2008, FRA has issued a final rule designed to reduce common operating practice mistakes that result in nearly half of all human error-caused train accidents. And in spring, FRA plans to issue a proposed rule to improve the design standards and structural integrity of tank cars that carry hazardous materials. For additional information, please see the following web-link: <http://www.progressiverailroading.com/news/article.asp?id=15304>

## East Coast ports gaining cost advantages

LONG BEACH, Calif. -- The historic dominance of West Coast ports in the U.S. trade with Asia is being threatened by East and Gulf Coast ports which continue to gain containerized cargo from Asia because of their relative cost advantages and room to grow.

Rising fees and environmental regulations are undermining West Coast dominance in Southern California, along with lower cost of intermodal shipments to inland points from East and Gulf Coast ports, and plans for expansion of ports and distribution centers in the Southeast, according to a panel Monday at the 8th Annual Trans-Pacific Maritime Conference sponsored by The Journal of Commerce.

"We lost 100,000 containers a year in shipment by one customer at our terminal in Seattle because it decided to deliver to the East Coast, said Edward DeNike, president of SSA Containers. "This happened at a time when the ILWU [International Longshore and Warehouse Union] is performing better than ever and no importer has a problem delivering cargo from the West Coast."

Carriers that deliver cargo to the ports of Long Beach and Los Angeles are facing a combination of new fees for environmental mitigation that amount to \$100 per fully loaded TEU. "The cost of fees is more than we pay to load or unload a container at the San Pedro ports," DeNike said. "This is Southern California and we know that Northern California will follow and the Pacific Northwest won't be far behind."

He said all the terminals on the West Coast have the capacity to handle more cargo, but the railroads don't.

Shippers are importing more of their containers through East Coast ports because 80 percent of the U.S. population lives east of a line drawn from Chicago through Dallas, said John Wheeler,

director of trade development for the Georgia Ports Authority. Although cargo volumes at East Coast and West Coast ports have grown at approximately the same rate over the past seven years, East Coast ports have seen imports from Asia grow at a faster rate than West Coast ports, Wheeler said, because of rail capacity problems and higher costs on the West Coast.

"Beneficial cargo owners want to diversify away from the West Coast ports because of higher costs there and closer proximity to their markets on the East Coast," Wheeler said.

The expansion of the Panama Canal by 2014 will further enhance the growing cost advantages of East and Gulf Coast ports, said Wayne Schmidt, an associate with Drewry Shipping Consultants.

He said the waterway's expansion would increase its throughput capacity by 39 percent to 70 percent annually. This will enable transits by 8,000-TEU ships, which will dramatically lower the cost per TEU of shipping from Asia to East Coast ports, Schmidt said.

For additional information, please see the following web-link for the full story at: <http://www.joc.com/articles/news.asp?section=spec1&sid=44551>

## Port of New Orleans seeks \$1 billion for expansion plan

NEW ORLEANS — The Port of New Orleans, battered by Hurricane Katrina 2½ years ago, will undergo a \$1 billion expansion that port officials say will be key to the city's economic rebound. The port's plans come as much of the rest of the city struggles to return to pre-Katrina conditions. The centerpiece of the plan is a \$478 million expansion to the port's container cargo terminal that would increase its capacity, according to a copy of the plan released Tuesday.

The expansion to its container operations would help New Orleans capture some of the projected boom in international shipping in the coming decade and infuse the city with much-needed jobs and revenue, said Gary LaGrange, the port's president and CEO.

"It's critical for the entire recovery of the city and greater New Orleans area," LaGrange said. "If the port doesn't recover and can't compete, New Orleans loses and Louisiana loses."

Hurricane Katrina battered the port in 2005, disabling some of its terminals along the Industrial Canal in eastern New Orleans and causing roughly \$165 million in damages, said Chris Bonura, a port spokesman.

The port has collected \$42 million of that claim and is in settlement negotiations for the rest, he said. The plan to expand the port's container cargo terminal began in 2004 but was interrupted by Katrina, he said. If the first phase of the master plan is completed, the container terminal would triple its capacity by 2012, in time for the widening of the Panama Canal, Bonura said.

The canal's expansion, scheduled to be completed by 2014, is expected to greatly increase the number of cargo-container ships in the Gulf of Mexico, he said. Many of those ships would come to New Orleans, he said.

"When you control the mouth of the Mississippi River, that's a very valuable asset," Bonura said. The plan also calls for a \$22.5 million expansion of the port's cruise ship terminals and a \$75 million expansion of its break-bulk facility.



The one catch to the port's plans: money. The port has been financially strapped after paying off a bond it previously floated, Bonura said. Port officials plan to use federal funds and tap the private sector for investors, such as banks and investment firms, who would front some of the capital money in exchange for port profits, LaGrange said. Requests for proposals are expected to be sent out by the end of the summer, he said.

Port officials will also ask the state legislature for roughly \$50 million a year to fund the projects, LaGrange said. As lawmakers debate how to spend the state's \$1.1 billion surplus, an investment in the port is a good bet, said J.P. Morrell, a state representative from New Orleans.

"There's going to be an incredible amount of port traffic once that Panama Canal widens," Morrell said. "As a port, we have to be poised to take advantage of it."

For additional information, please see the following web-link: [http://www.usatoday.com/news/nation/2008-03-04-new-orleans-port\\_N.htm](http://www.usatoday.com/news/nation/2008-03-04-new-orleans-port_N.htm)



## Quick Response Freight Manual (2nd Edition) Released

The FHWA Office of Freight Management and Operations recently announced the release of the Quick Response Freight Manual II.

The manual is an update to the first edition developed for FHWA in 1996. Like its predecessor, the new edition provides background information on the freight transportation system and factors affecting freight demand, helps

planners locate available data and freight-related forecasts compiled by others, shows how to apply this information in developing forecasts for specific facilities, and provides simple techniques and transferable parameters that can be used to develop freight vehicle trip tables.

For additional information, please see the following web-link:

URL: <http://www.ops.fhwa.dot.gov/freight/publications/qrfm2/index.htm>

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## U.S. Surface Transportation Trade Up with Mexico

U.S.–Mexico surface transportation trade totaled \$21.3 billion in December 2007 up 2.1 percent compared to December 2006 according to BTS.

The value of imports carried by truck was 6.9 percent higher in December 2007 than December 2006 while the value of exports carried by truck was 3.3 percent lower. Texas led all states in surface trade with Mexico in December with \$6.5 billion (Table 7).

The TransBorder Freight Data are a unique subset of official U.S. foreign trade statistics released by the U.S. Census Bureau.

New data are tabulated monthly and historical data are not adjusted for inflation. December TransBorder numbers include data received by BTS as of Feb. 14.

The news release and summary tables can be found at [www.bts.gov](http://www.bts.gov). More information

on TransBorder Freight Data and data from previous months are posted on the BTS website at: <http://www.bts.gov/transborder/>. BTS will release annual TransBorder numbers on March 11 and January TransBorder numbers on March 31.

See full BTS report at: [http://www.bts.gov/press\\_releases/2008/bts010\\_08/pdf/bts010\\_08.pdf](http://www.bts.gov/press_releases/2008/bts010_08/pdf/bts010_08.pdf)

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## 2006 Large Truck Crash Overview

The mission of the Federal Motor Carrier Safety Administration (FMCSA) is to promote the safe operation of commercial vehicles on our Nation's highways.

Of the 42,642 people killed in motor vehicle crashes in 2006, 12% (4,995) died in crashes that involved a large truck. Another 106,000

people were injured in crashes involving large trucks. Only about 16% of those killed and 22% of those injured in large truck crashes were occupants of large trucks.

From 1996 to 2006, the number of large trucks involved in fatal crashes dropped from 4,775 to 4,732—down by

0.5%. The number of large trucks in fatal crashes per 100 million vehicle miles traveled declined in these years from 2.60 to 2.12—down 18%.

For a full copy of this report, please see the following web-link for additional information: <http://ai.fmcsa.dot.gov/CarrierResearchResults/PDFs/2006LargeTruckCrashOverview.pdf>

## Futuristic shuttle may transform freight transportation

It has the promise of revolutionizing the way freight is transported within ports, across borders and along highway corridors around the world. It could also drastically reduce emissions and delivery delays, while significantly increasing efficiency and security. In short, the Universal Freight Shuttle (UFS) could change the essence of the way humans do business.

"The Universal Freight Shuttle was conceived eight years ago when my team and I were investigating an underground transportation method," says Assistant Agency Director Steve Roop, the head of the Texas Transportation Institute's (TTI) Multimodal Freight Transportation Division and the UFS developer. "We soon realized the underground project was not feasible, but we used some of those same ideas to develop the shuttle's concept."

The futuristic-looking UFS consists of electrically powered vehicles propelled by linear induction motors that travel on a specialized, derailment-proof guideway similar to the "people movers" operating at some major airports and cities. However, these shuttles are large enough to move any standard freight container or trailer. Researchers say the major benefits include the low operational costs and the promise of congestion relief.

Use of the UFS at ports will include Homeland Security scanning stations, which will allow every container to be inspected (compared to the estimated five percent that are inspected today) without delays. Along highways, the UFS will

operate on existing rights-of-way. It will be built on an elevated guideway, allowing for travel beneath it. Landowners would also be able to move cattle and farm equipment underneath the guideways.

"Many have commented that all of this sounds too good to be true," Roop says. "But, there is huge interest in the Universal Freight Shuttle. The biggest next step right now is to get a prototype built so it can be tested and proven."

Building a prototype is where the Port of Corpus Christi comes in. Negotiations are under way with the port to build a full-scale prototype on its property at Ingleside. "The Port Commission was very intrigued with the UFS," says Corpus Christi Port Commissioner Judy Hawley. "We directed the staff to proceed with the negotiations with TTI because we could see the shuttle's tremendous potential for moving freight efficiently, securely and on time between the LaQuinta container terminal and commercial centers in Mexico, via the inland Port of Laredo." In addition to the negotiations with the Port of Corpus Christi, the UFS has received a high-profile endorsement with the same company that has been named master developer for the Trans-Texas Corridor 35. Zachry American Infrastructure



intends to use the UFS for the project's freight transportation component.

"When I first saw the design of the shuttle, it became very clear that it met every criterion we laid out in advance for a successful freight transport system," says Gary Kuhn, senior project manager for Zachry American Infrastructure. "From the projected long-term costs and maintenance requirements to the environmental benefits, the Universal Freight Shuttle was the hands-down choice."

"I think the Universal Freight Shuttle meets all of TxDOT's goals," Roop says. "That's why there is so much enthusiasm to move forward. If all goes as planned, I think the term 'Universal Freight Shuttle' will become synonymous with freight transport, only it will take less time and money to operate, and be safer for people and the environment—not to mention its positive impact on congestion." For additional information on the proposed "Universal Freight Shuttle" please see the following TTI website:

<http://tti.tamu.edu/publications/researcher/newsletter.htm?vol=43&issue=4&article=8&year>

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### Famous Quote of the Day:

"Only those who dare  
to fail greatly can ever  
achieve greatly."

--Robert F. Kennedy,  
former U.S. attorney  
general and U.S.  
senator

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Information provided is a compilation from other news and on-line media sources, any information relayed is based upon the accuracy of the information provided by other news gathering organizations and does not necessarily reflect the views or positions of the Federal Highway Administration or the State of Texas Border Partnership Working Group.

## Next FHWA HQ's Talking Freight Web Seminar

The Federal Highway Administration's (FHWA's) Office of Freight Management and Operations and the Office of Planning host the "Talking Freight" seminars.

The seminars are part of a broader Freight Professional Development Program aimed at providing technical assistance, training, tools, and information to help the freight and planning workforce meet the transportation challenges of tomorrow. Seminars are held on a monthly basis throughout the year and are

open at no cost to all interested parties in both the public and private sectors. The next "Talking Freight" web seminar to be held on March 19th from 12-1:30 PM (CST) will cover tolling and pricing issues with the State DOTs of Indiana and Georgia.

For additional information, or to register for future events, please see the following web-link: [http://](http://www.ops.fhwa.dot.gov/freight/fpd/talking_freight.htm)

[www.ops.fhwa.dot.gov/freight/fpd/talking\\_freight.htm](http://www.ops.fhwa.dot.gov/freight/fpd/talking_freight.htm)

## TRB Conference on North American Freight Flows: Understanding Changes and Improving Data Sources

TRB is sponsoring the North American Freight Flows Conference: Understanding Changes and Improving Data Sources on September 22-23, 2008, in Irvine, California.

The conference is designed to bring together a diverse group of border data users and providers to discuss freight transportation data from a North American perspective, highlight recent changes in government-supplied data sources, and assess user needs for today and the future.

Authors wishing to have papers considered as part of the conference program must submit their abstracts by April 10, 2008.

For additional information, please see the following TRB web-site: [http://www.trb.org/news/blurb\\_detail.asp?id=8746](http://www.trb.org/news/blurb_detail.asp?id=8746)

## TxDOT Transportation Planning Conference May 27-30th in Houston, TX at Westin Galleria Hotel

TxDOT is planning to host its biennial Transportation Planning Conference on May 27-30th in Houston, Texas at the Westin Galleria Hotel. For additional information and for on-line registration for this conference, please see the following website: <http://tti.tamu.edu/conferences/tpp08/>

Please note that on-line registration will be available until 5:00 pm CST, Wednesday, May 21, 2008. After this date, please plan to register on-site at the West Galleria Hotel.

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