



**TEXAS
FREIGHT
ADVISORY
COMMITTEE**



Texas Freight Leadership Summit

April 3, 2014, 8:00 a.m.

Hyatt Regency Hotel, Houston, Texas

Speakers and Moderators

Name	Title	Organization
Marc D. Williams, P.E.	Director of Planning	TxDOT
Jeff Moseley	Commissioner	Texas Transportation Commission
David Aguilar	Partner	Global Security and Intelligence Strategies
Amir Mirabi	Director, Small Business	Governor's Office of Economic Development
Carlton Schwab	President/CEO	Texas Economic Development Council
Bob Pertierra	Senior VP and Chief Economic Development Officer	Greater Houston Partnership
Jorge Canavati	President	J. Canavati & Co., LLC
Ron Beeson	Global Logistics Manager – Global Supply Chain	The Lubrizol Corporation
K. Alan Russell	President and CEO	The Tecma Group of Companies
Mike Graham	Senior Vice President Supply Chain & Logistics	H-E-B
Bernard L. Weinstein, Ph.D.	Associate Director	Maguire Energy Institute, SMU
Michelle Livingstone	Vice President Transportation	The Home Depot
The Honorable Sylvia R. Garcia	Texas State Senator, District 6	Texas State Senate
Brenda Mainwaring	Vice President Public Affairs South	Union Pacific Railroad
John LaRue	Executive Director	Port of Corpus Christi
Jim FitzGerald	Program Manager – Business Unit Operations	BNSF
Michael Webber	Founder	Webber Air Cargo
Patrick Maher	Director of Logistics Services	Gulf Winds International

Program Emcees

Tiffany Melvin
Erik Steavens

Executive Director, NASCO
Director of Rail Division, TxDOT

TxDOT

Caroline Mays, AICP

Manager, Freight Planning Branch, TxDOT

Laura Perez
Sondra Johnson

Planner, TxDOT
Planning and Programming, TxDOT

CDM Smith Consultant Team

Vince Mantero, AICP	CDM Smith
Janna Rosenthal	CDM Smith
Glennis Nelson	CDM Smith
Butch Babineaux	CDM Smith
Marie Lewis Adams	Nancy Ledbetter & Associates, Inc.

1. Breakfast & Welcome

Erik Steavens opened the event, thanking participants and introducing Marc Williams.

Marc Williams welcomed all participants, and thanked meeting organizers and sponsors. He discussed the importance of the summit and hoped it would mark the beginning of an annual event. He introduced Commissioner Jeff Moseley.

Commissioner Moseley also thanked participants, and noted that Texas is in a state of being “under construction” with continued economic growth. That growth generates a need for expanded/improved infrastructure. He mentioned the demand for additional capacity and the growth of the Mexican economy as key issues that will affect the freight industry. He then introduced keynote speaker David Aguilar.

2. Keynote Breakfast

David Aguilar delivered a presentation on trade opportunities and challenges across the Texas/Mexico border. He noted the large volumes as well as the importance of trade between the two countries. There has been a five-fold increase in U.S. Mexico trade, increasing to \$500 billion, since NAFTA was enacted 20 years ago. \$1.2 billion in trade crosses the Texas/Mexico border every day. Border trade stimulates economic development and brings jobs to border communities. Security threats are real, including the illegal drug industry, but the border is increasingly safe; two of the safest cities in the nation are on the border (El Paso and San Diego). While trade between the countries continues to grow, aged and outdated infrastructure in Texas poses a threat to continued economic growth. Traffic congestion, time-consuming inspections, and constrained capacity are all limiting factors. He provided several recommendations for infrastructure investment, increased security, expanded use of technology, and stakeholder communication as well as tactical and strategic approaches to achieving goals.

One participant asked about a \$6 billion figure that Aguilar had mentioned, wondering what improvements the amount would cover.

Mr. Aguilar responded that the figure referred to the cost of improving all infrastructure in Texas in order to adequately handle the freight demand that exists today – roads, bridges, crossings, etc.

Another participant noted Mr. Aguilar had discussed truck delay at the border, and asked what kinds of delay railroads experience at border crossings.

Mr. Aguilar mentioned delays at the Eagle Pass border crossing, and noted that trains often need to swap crews at the border which causes delays. He said technology has the ability to help alleviate railroad delay issues.

A participant commented that instead of just looking at delay time, the cause of delay issues need to be identified. Border inspection handoffs are a big problem; a lot of time is wasted.

Mr. Aguilar agreed with the statement. He noted that immigration reform, better alignment of border/customs/safety agencies, and technology will help solve many problems.

3. Panel One: Efficient Freight Movement as the Key Driver of Texas' Economic Vitality and Competitiveness

Moderator Amir Mirabi began the first panel discussion and thanked everyone for participating. He noted the importance of the subject matter to the state of Texas. He thanked Commissioners Moseley and Aguilar, the Texas Freight Advisory Committee, TxDOT, and summit sponsors.

Mr. Mirabi mentioned a phrase “Cana-Mexicans” that he had coined previously, referring to North Americans as a combined body. He noted that there are dangers to creating borders and isolating countries from one another. Ever since the Silk Road, the Federal Highway System and the Trans-Canada Highway, proper transport is critical. Texas is fortunate to have good transport system; it has the most rail and road of any state. About 1,100 people move to Texas each day, however, and they all need things – jobs, food, shelter – and a way to get between them. They also bring companies, innovation, ideas, money, and goods which need to move freely as well. The Texas Freight Mobility Plan (TFMP) is critical in building the state’s future. Texas is nothing without trade; it is the economic nodal point of North America. He recalled an item from Mr. Aguilar’s earlier presentation which stated that “freight always finds the path of least resistance.”

Carlton Schwab delivered a presentation entitled “Linking Freight Transportation and Economic Competitiveness.” He provided an overview of the Texas Economic Development Council (TEDC). Freight is big business; Texas ports of entry (ports, airports) are among the biggest and busiest in the nation. The state keeps growing in population, and is facing gridlock. Texas faces the threat of losing what it has created because freight flows to the path of least resistance (it may move elsewhere, where transportation is cheaper, faster and more reliable). There is massive congestion on I-35 and throughout the state, which can have a detrimental effect on economic development. Texas’ unmet transportation needs are \$5 billion annually. Company location decision-making is predominantly based on logistics – they will go where making money is easiest. Texas is an exporter, and transportation is an investment that pays off.

Jorge Canavati delivered a presentation entitled “Efficient Freight Movement: Challenges and Opportunities in Bexar County.” Bexar County is both a Union Pacific and BNSF railroad region; it has connections to coastal ports via efficient intermodal links. International business is robust in San Antonio and throughout the state. Bexar County has many large regional distribution centers including Amazon, Maruchan, and Dollar General. The area is generating considerable foreign direct investment for international trade. Texas needs upgraded infrastructure, especially

roads. Mexico is investing more in infrastructure than the U.S. The Eagle Ford Shale (EFS) has changed the face of the South Texas/San Antonio trade and logistics industry, but causes stress on the highway system due to heavy loads and frequent trips. It is unclear who the winners and losers will be with the Panama Canal expansion. The project will allow the same amount of trade on larger vehicles, causing stress on U.S. ports, and providing direct competition to the U.S. intermodal system.

Bob Pertierra delivered a presentation on the Greater Houston Partnership (GHP). The GHP encompasses a 10-county area, helping the region to be the best place in the nation to work, live, and attract jobs. Houston is the 4th largest economy in the country. When deciding where to locate, companies look at access to markets and suppliers. Convenient access to the Texas/Mexico border is also important. There is a substantial refinery business in Houston and a renaissance in manufacturing as well, spurred in part by cheap natural gas from the nearby EFS. Houston trade has grown; Texas is an export state, and exports produce wealth. Trade flows through infrastructure, and access is opportunity. The state's transportation system is crucial in maintaining competitiveness. Companies typically need to be within 45 minutes of mobility hubs. All modes are needed in order to be successful. Congestion and bottlenecks are a serious problem; they reduce the range of labor available and constrict access.

Mr. Mirabi asked the first question following the presentations. He noted that all things without money are theoretical, so where does the state get funding to improve infrastructure? Governor Perry was recently at the World Economic Forum in Davos, which included discussions on worldwide infrastructure deficiencies. The U.S. is behind in terms of funding infrastructure, and is ranked among the bottom 40 countries. How does the freight community induce money to come to Texas – perhaps sovereign wealth funds, pension funds, etc.?

Mr. Pertierra stated that public-private partnerships (PPPs) are important; external funding sources are necessary. There are several very successful national and international models in play.

Mr. Canavati mentioned foreign direct investment as an important source of funding. There are many individuals and companies which have trust in investing in the U.S.

David Allex, Chairman of the Cameron County Mobility Authority, commented that no successful projects could have been accomplished without local initiatives taking control of the situation. Cameron County is undertaking \$2 billion in infrastructure work in the next few years. The state legislature needs to allow local initiatives to do what needs to be done.

Another participant asked whether in a limited-funding environment, there are any more efficient ways of utilizing existing infrastructure before attempting to build more? For example, after September 11, airports added more terminals and infrastructure but there was no demonstrable improvement in safety or efficiency.

Mr. Pertierra said there were efficiencies to be gained within the existing system by shifting freight to different modes, such as utilizing more rail freight rather than trucking. Critical nodes, first-mile last-mile connections, etc. are crucial so those modal shifts can happen. Opportunities around critical points is one way to better utilize existing infrastructure.

Tiffany Melvin discussed technology-based solutions as an often-overlooked way to improve use of existing infrastructure. These solutions have private and public-sector benefits, and involve more efficient communication all along the supply chain and with public-sector agencies.

There are some very successful pilots underway, such as Freight Advanced Traveler Information Systems (FRATIS).

Mr. Mirabi asked Mr. Canavati how technology has helped the Port of San Antonio.

Mr. Canavati replied that technology has improved operations.

Mike Wilson noted there was a “theme” in the presentations regarding linking infrastructure with economic development; they often go together, but have never been formally “married”. What are some baseline criteria for linking infrastructure and economic development?

Carlton Schwab said location plays a key part; Texas has such a natural advantage, but infrastructure investment is necessary. Policy makers need to see money as an investment, not an expense. These days, the state is reluctant even to spend money out of ample rainy day funds.

Mike Wilson continued his question by asking what the active management of infrastructure and economic development would look like. Currently it is passive, but how can it be active?

Mr. Mirabi said that active management involves “the other P3” – Power, People and Ports. Those three components are critical for economic development. The state is actively working on the electrical grid and water distribution/conservation as well. Workforce development is crucial, and the state is actively engaged in this effort. Finally, everything needs to be connected to ports.

Mr. Periterra added the importance of access to markets, access to talent, and infrastructure. If Texas does not keep up in those areas, its competitiveness will decline.

John LaRue said that next year’s summit might need a panel that focuses on border issues. Mexico seems to be ahead of Texas in terms of roads and rail.

Mr. Canavati agreed that Mexico is aggressively investing in infrastructure and has invested billions into roads, seaports and airports. They are building a new toll road that will connect the Pacific to Brownsville on the Mexico side; that road will be a direct competitor to Interstate 10. Congestion and redundant inspections cause negative economic development. He suggested the North American Development Bank (NADBank) should be involved in infrastructure discussions.

One participant noted that toll roads are an interesting idea for trucks to travel quickly and avoid congestion, but how should trucks be regulated/incentivized to use these roads and pay the tolls?

Another participant from the SH 130 Concession Company said SH 130 partnered with TxDOT to incentivize trucks to use the toll road around Austin by reducing tolls to the price of regular cars for a limited amount of time. The program is currently over, but the company is looking at the results of the effort and considering future actions.

4. Panel Two: The Role of Transportation in Maintaining Texas’ Advantage in Manufacturing, Retail and Energy Sectors

Erik Steavens introduced the elected officials in attendance including State Senator Sylvia Garcia, State Representative Rick Miller, and Richard Zientek, Transportation Policy Advisor to Harris County Judge Ed Emmett. He introduced Ron Beeson and the next panel.

Moderator Ron Beeson discussed the role of the panel, which focused on representatives from the manufacturing, energy and retail sectors.

Alan Russell delivered a presentation entitled “The Role of Transportation.” He provided an overview of the Tecma Group of Companies and the importance of transportation to the manufacturing industry. He recently flew over the EFS and saw incredible development, and saw that roads in the area are potholed because of large trucks. The shale oil and gas is in Mexico as well; it is not only on the Texas side. Technology is important in creating a more efficient transportation system. Tecma will cross 13,000 trucks through the border this year, and that is just a small piece of overall cross-border trade. North American competitiveness is the key to economic growth. Trade growth is projected to increase, and that does not even include fracking. Reducing congestion will help reduce pollution, wasted man hours, and increase safety. He spoke of his passion for reducing border wait times and ideas such as pre-clearance, tracking, and a streamlined inspection process. Simple things can be done to use infrastructure more efficiently. Texas needs better real-time communication on trade and logistics. U.S. and Mexico need to collaborate on trade and infrastructure improvements to prevent future instances such as the one that occurred when the U.S. built a bridge halfway over the border, but the Mexican government had no plans to develop the infrastructure in that particular area, so now there is half of a bridge to nowhere.

Mike Graham delivered a presentation on H-E-B. H-E-B has a large freight presence, but is just one retailer of thousands in the state. The store will post over \$22 billion in sales this year, in Texas and Mexico. H-E-B products come from 82 countries around the world and travel via ships, air, and land. Produce is a challenge; speed is crucial to delivering fresh products. H-E-B strives to achieve safe, efficient, and clean transportation. Texas’s population growth helps H-E-B sales, but infrastructure needs to grow at comparable pace, otherwise transport is less safe, clean and efficient. There are considerable cross-border challenges, particularly because Mexico supplies a lot of produce. Every H-E-B truck is tracked by GPS, which allows the company to re-route trucks due to congestion or other factors. The Texas freight network needs more technology, and expanded/improved infrastructure. He advocated against regulations that limit efficiency, which will only drive up the demand for additional infrastructure.

Dr. Bernard Weinstein delivered a presentation entitled “Texas’ Energy Boom and Future Infrastructure Needs.” He discussed the challenges of moving energy around the state and the nation. There is a current revolution in energy production with shale and fracking. This has resulted in huge increases in production, especially in Texas. Pipeline infrastructure is inadequate to handle the volumes currently in play, although there are several pipelines under construction in Texas. A lot of crude oil is currently moving by rail, but according to recent data, rail is a more expensive and dangerous option (many more spills are reported on rail than pipelines or trucks). Oil is also moving by barge, which is generally quite safe. It can take 1,000 truck trips to complete one oil well, which causes deterioration of Texas roads (particularly farm-to-market roads) due to heavy energy-related loads. The question is how to pay for infrastructure improvements. Dr. Weinstein suggested several options including impact fees, transportation investment zones, diesel taxes, earmarks, rainy day funds, and severance taxes. Investment is needed, and the industry (meaning everyone) will have to pay for it.

Brenda Mainwairing commented on Dr. Weinstein's statements about the safety of various methods of hauling crude oil. She noted that pipelines and rail are equally safe. It is difficult to find apples-to-apples comparisons between the modes because railroads are always monitored, and have to report every spill no matter how small. The vast majority of spills are 5 gallons or less. Pipelines, however, are not monitored along their whole length so not all spills are tracked. There is consensus that the modes are equally safe.

Dr. Weinstein replied that he was not advocating for more pipelines, but that Texas needs all modes and needs to ensure that all methods of moving oil are safe. There are some specific concerns about the volatility of oil coming from the Bakken fields in the North Dakota area.

One participant noted that the existing highway system has plenty of capacity during the night hours, but that this capacity is underutilized.

Mike Graham said that H-E-B does a significant amount of overnight delivery; however, many stores are in communities that do not want trucks delivering at night. In general, truck drivers would prefer to drive at night because it is less congested.

The same participant asked whether there was a drop-off in activity at border crossings at night, and whether that capacity could be used to advantage.

Alan Russell said there was no question that there is capacity at night. The challenge is that Customs and Border Patrol (CBP), public safety, etc. tend to shut down in the evening. In past there were a few tests where the agencies agreed to stay open later, such as until 10pm, to see whether shippers would take advantage of the evening hours. It takes up to 4 months, however, for a company to re-adjust its supply chain so it can change its shipping schedule. The tests lasted only 60 days and therefore did not show much use of nighttime hours. This points to a communications problem between the freight industry and border authorities. It takes time but yes, there is capacity at night.

A participant from Endeavor asked about the predictability/constancy of shale oil production, since the decline of shale wells is significantly different than traditional drilling. How can companies be assured that shale production will continue at the current rate?

Dr. Weinstein agreed that as a rule, there are faster rates of decline from unconventional wells but there are huge volumes up front; also, technology is changing constantly. Many wells are being re-fracked. Based on current research, there is no significant chance of production decline on the technical or geological side. It is critical for the state to get into the business of exporting liquefied natural gas (LNG).

One commenter said Laredo allowed 24/7 access over the border in 2007-2009 and saw very little usage during the night, but this was also during the height of the economic downturn. Toyota Corporation spent two years coaching its supplier in Mexico on supply chain efficiency and created an almost perfect supply chain, but the process took a long time.

A participant noted there is \$6 billion in investment occurring in the Texas automotive/aerospace industry, but nothing is being done on the ports of entry. State officials need more data on where the issues are so they know where to make investments. When trucks cross the border, Texas officials, Mexican Customs, CBP, Department of Public Safety (DPS), and other authorities are not communicating with each other and delays occur. Capacity is not maximized because of process issues. Shared data resources are necessary; once there is proof that Texas has hit capacity, it will be easier to find money for investments.

Mike Wilson said jobs are an echo of consumer buying decisions; they are based on habitual purchases. Texas needs to get ahead of investments for economic development, and marry economic development to infrastructure – it is important to know what is needed ahead of time instead of later. What needs to change on the federal side in order to move things forward on the planning side?

Ron Beeson noted the Texas Transportation Commission (TTC) is avid in looking out for industry interests, but anything that can be done to avoid over-regulation will be a positive.

Mr. Graham said Texas is currently so behind in its infrastructure that there is little forward planning being done. Better utilization of the existing system will help, and the industry can and does seek to maximize those opportunities. If the borders are open during extended hours, companies will use them if they present cheaper or faster options.

A representative from NASCO noted the nature of oil coming out of the shale is a light, sweet crude. Refineries in Texas were built to handle heavy, sour crude oils, while west coast refineries are better equipped to handle the light, sweet oil. There is a brand-new business where the shale fields will be shipping light, sweet oil to California or the east coast by rail. Even if the Keystone XL pipeline were built tomorrow, Texas would still need to ship oil to the coasts.

Dr. Weinstein agreed, but said Texas also needs to export and import crude oil if it makes economic sense. However, there are political difficulties with this.

The NASCO representative said the fact that the U.S. is no longer importing any light, sweet crude (because of shale production) is a historical revolution.

Toby Spoon of Secure Origins said Texas is behind on infrastructure; typically the state has just responded to potholes, etc. but has not been out in front of infrastructure planning. Data is key. It is important to predict trends before all roadways are congested. Data is available to make decisions on infrastructure investment.

Bill Corn of Texarkana asked about corporate needs for alternative transportation systems. Why are alternative options not taking off?

Mr. Russell replied that there are several alternatives being discussed, like the Freight Shuttle System, but funding is the bottom line. Money is currently focused on maintaining what is already in place. These kinds of projects will happen in future, but they must be created through public-private partnerships. They will not happen fast enough to address trade growth.

Dr. Weinstein stated the need to elevate the freight issue in the public and state legislature's mind. High-speed passenger rail captures the imagination, but freight is not "sexy".

Mr. Graham said the Freight Shuttle System is the most promising technology he has seen in 25 years, and is a huge advocate.

5. Keynote Luncheon

Michelle Livingstone delivered a presentation on The Home Depot and the transportation/freight side of its business. She provided an overview of the company and its plans for growth; they plan to open a few new stores but also intend to expand and improve their online shopping presence. Up until 2007, Home Depot would ship products directly from suppliers to individual stores, which was expensive and inefficient; they have since moved to a regional distribution

center (or “Rapid Deployment Center”) model where products are shipped to centers which supply stores within designated geographic areas. Home Depot has a large presence in Texas with 178 stores and several distribution centers. As smart phone use has increased, the company continues to improve its mobile interface and its shipping network. All modes are used to ship Home Depot products nationally and internationally. Imports from Mexico have grown and will likely continue to grow. On-time shipment and delivery is very important; reliability is more important than speed. She closed by providing a series of recommendations to “keep freight flowing” throughout Texas.

A participant mentioned that retailers often want to locate close to customers for convenience, like for same day delivery options etc. She asked whether this was a growing area of interest for Home Depot.

Ms. Livingstone said yes, Home Depot is providing some rapid deliveries through local carriers, and its local stores are available for same-day purchases and pickups. Home Depot is building its online shopping and delivery capacity; it is not planning to open many new stores because the growth is in online shopping. The company is trying to be in front of what the customer wants. Same day delivery is an interesting concept, but many people don’t want to pay the extra cost it requires.

One participant asked whether, since imports from Mexico are increasing, Home Depot was planning to locate additional “Rapid Deployment Centers” (RDCs) near the border.

Ms. Livingstone answered that it is definitely a possibility, but the company has no current plans to do so.

Another participant asked what percentage of Home Depot’s costs are transportation-related, and whether it has changed over the years.

Ms. Livingstone answered that the percentage number is confidential, but it has declined in recent years. The RDC model has reduced transportation costs.

One commenter said contrary to what the group heard during an earlier panel, there is forward-looking infrastructure planning being done in Texas by TxDOT and other groups. Unfortunately, federal and state regulations mean that things can take years to get approved and built. The state needs private sector individuals (such as Ms. Livingstone) to advocate for moving things quickly through the permitting process.

Ms. Livingstone agreed that the process is time consuming, and said it is amazing what Home Depot has accomplished within the current atmosphere. Sometimes changing opinions and moving things forward does not take a lot of voices – people do have the power to affect change. People want to make the right decisions, but they need all the information.

6. General Remarks

Tiffany Melvin welcomed participants after lunch and introduced Senator Sylvia Garcia.

Senator Garcia said that there are challenges ahead in Texas; getting around is just as hard as getting along. There are challenges to both, but summit participants are committed to making things happen. Funding is always the biggest challenge. There will be a road funding proposition on the ballot this coming November which would allow some money from the rainy

day fund to be spent on transportation projects. She urged participants to support the bill. The legislature agrees that it is just one step towards a better transportation system, but a good start.

She continued by stating that Houston started a lot of great innovation in Texas. She is on several legislative committees and understands the challenges the state faces. She believes in getting things done and getting people from “A to B” efficiently. Every constituent wants their road to be perfect; she said she does not have all the answers but wants to hear from the freight community before the legislative session starts in January. She urged participants to visit their legislators and give them ideas on how to improve and fund infrastructure in Texas. The state needs a permanent solution.

She asked participants whether they would support increases in car registration fees, gas taxes, and other funding methods; many people across the state do not want to see any increased fees. By show of hands, the group showed that they were supportive of the ideas to increase revenue for transportation.

A representative from NASCO said that there were technology solutions that would allow Texas to use existing infrastructure more effectively.

Steve Wilson opined that the trucking industry should be taxed. Road building is more expensive now because roads need to accommodate heavy trucks. Trucks use a large amount of capacity and require more expense, so they should help to pay for it.

Senator Garcia said the trucking industry would be quick to come down to the legislature with lobbyists if increased taxes were proposed. Trucks can and do cause significant damage. Perhaps a system of truck-only lanes would work better. She asked whether participants would support a vehicle miles traveled (VMT) taxation system, and several participants raised their hands. She said she thinks all ideas should be on the table, and that a permanent solution is necessary. She again invited participants to send the legislature their ideas.

One participant suggested changing the motor fuels tax to percent of sale rather than pennies per gallon, and indexing it to inflation.

7. Panel Three: Increasing Texas’ Global Trade, Economic Development and Commerce Through a Robust Multimodal Transportation System

Moderator Brenda Mainwairing described the topic for the third panel: multimodalism and economic success. The panel will attempt to put a capstone on the day’s discussions and how they can be applied. There are four relevant objectives in the Texas Freight Mobility Plan (TFMP): increase supply chain efficiency, improve first-mile/last-mile connections, improve rural/urban connectivity, and improve ports’ land-side capabilities. Earlier the group heard about economic development, and from freight users; this panel focuses on modal representation and actions that modes are taking to enhance freight in Texas. The panelists will talk about the role of multimodalism within modes, investments their companies have made, and thoughts on how the TFMP might leverage private investments for public benefit.

John LaRue delivered a presentation on the Port of Corpus Christi. He began by mentioning the Texas Port Access Fund, which exists but has never been funded. Other gulf ports receive state

funding, but not Texas ports. The EFS has significantly changed the face of shipping in Texas. There are many natural gas, oil, LNG, and condensate-related projects underway near the port, and many dock improvements to handle increased shipping. Other than pipelines, water is probably the most efficient and safe way to move oil and gas. The Port of Corpus Christi created a strategic plan with a rail yard, pulling from a variety of public and private funding sources. The Washington, D.C. process for funding ports is broken. The Gulf Intracoastal Waterway (GIWW) is not adequately funded to keep the depth at 12' instead of at the current depth of 9'. There is also not enough funding to upgrade and maintain the locks on the waterway. The barge companies have asked Congress to increase the tax that they pay to use the GIWW so that enough funds will be available to make improvements. Panama Canal expansion projects will bring larger ships into U.S. ports; the ports want to develop deeper channels to handle these big ships, but they do not have enough funding to do so.

Jim FitzGerald delivered a presentation on BNSF Railway, and particularly discussed BNSF's intermodal operations. BNSF moves about one quarter of the nation's freight, and intermodal represents over 50 percent of BNSF's business portfolio. Railroads are a high fixed-cost industry which makes long-term investments and often looks over 50 years into the future. The intermodal business is largely focused around consumer products. Railroads sell line-haul opportunities to other companies and modes. BNSF uses several centrally-located intermodal facilities to transfer goods between distribution facilities, ships, trains and trucks.

Michael Webber delivered a presentation on the air cargo industry. After presentations discussing the growth in the rail freight and trucking industry, air cargo represents the other side of the story. Among Texas airports, DFW is the biggest airport in terms of metric tons (regional hub for UPS), followed by Houston, and then Alliance (regional hub for FedEx). Most airports have seen major losses since 2000, for several reasons including the decline of the manufacturing industry, the ongoing recession and a decline in first-class mail as online communication have increased. Regional distribution centers have changed the industry, as goods are located closer to destinations and are less likely to require air travel. Houston's George Bush Intercontinental Airport (IAH) was the only Texas airport to show gains in the cargo business between 2000 and 2013. There have been some gains in international shipping, but not enough to overshadow massive domestic losses. The U.S. is projected as the slowest-growing major market for the next 20 years, so the focus is on growing international business. Capacity has been brought down at many airports and might not need to be replaced in future.

Patrick Maher delivered a presentation entitled "Investing in the Future of Texas: Creating a World Class Multimodal Transportation System." He provided an overview of Gulf Winds International, which provides logistics services covering several modes. There is nothing more intermodal than transloading. Transloading is taking ship containers by truck to a nearby warehouse, unloading the container and getting the container back to the port quickly, maybe even in a day, instead of the 7 – 8 days for the traditional warehouse delivery. Trucks then go to the warehouse and pick up the merchandise for delivery to a distribution center or store. The company's technology (such as gwiTrack) reduces cost and inefficient one-way trips. Texas has a number of advantages for the freight industry – geology, geography, a pro-business climate – but also faces challenges including increased national competition, congestion driven by population growth, and a shortage of truck drivers. In order to face these challenges, Texas needs infrastructure investment in highways, port terminals, and rail connectivity.

Ms. Mainwaring thanked panelists for putting together interesting and unique presentations. There was significant discussion during the course of the day about public-private partnerships (PPPs); she noted that PPPs can be a challenge, and there are not many truly successful

examples. She asked panelists which PPPs can be used as a model of success, and how PPPs could be improved.

Mr. FitzGerald discussed the Alameda corridor (built to connect San Pedro ports with railroad main lines in Los Angeles) as a successful partnership. It provided infrastructure to avoid circuitous routings in southern California. Another PPP that will work well is Tower 55 (the intersection of Union Pacific and BNSF lines in Fort Worth). This will move freight more quickly and efficiently, and the community will benefit by not having trains backed up at the intersection. Both projects included the recognition that business has something to add in terms of providing suggestions on what will work. It takes time, but the value is there.

Mr. LaRue cited two examples from Corpus Christi. One is the port rail yard currently under construction with multiple funding sources; the other is a channel extension/improvement project which began in 1992 and is just completing its first phase, the channel extension. The port is paying \$22 million; the government is paying \$50 million. The return on investment is the attraction of a new LNG facility, a steel manufacturing facility, and others that were contingent upon the channel project.

Mr. Webber stated PPPs have been the backbone of new airport cargo facilities for years. Airports have seen most funding go to passenger facilities, and they are often not savvy in terms of investment opportunities. The public side is important.

Mr. Maher said in terms of trucking and warehousing, improvements are generally on the private side. The Port of Houston is getting approval on dredging to make the channel bigger, and had to provide funding up front to get reimbursed later. Ports need to keep dredging because ships are getting bigger.

Ms. Mainwaring said for private companies, it all comes down to return on investment (ROI); public agencies are measuring more intangibles, but PPPs still need to include a positive ROI for both sides.

One participant asked the panelists to identify major air, rail, port, and truck improvement projects that should be undertaken in Houston, such as double tracking, dedicated truck corridors, etc.

Mr. Maher replied that rail into Bayport is important, particularly for box cars. He also suggested truck bypass corridors (perhaps SH 99) so trucks do not have to pass through central Houston.

Mr. Webber said IAH was the only major Texas airport to be in the black on the freight side between 2000 and 2013. Another was Miami; a lot of growth during this time came from Latin America. Houston's airport is actually quite well run. They have adequate capacity, and should not have any shortages. The airport is in enviable condition.

Mr. LaRue suggested reforming the permitting process, because it is getting lengthier. This is not necessarily due to additional regulation, but there is more and more activity these days. What used to take 6-9 months can now take 18 months. The state has a proactive industry, but the permitting is not getting done and needs to be streamlined.

Mr. FitzGerald proposed improvements in technology to aid the interchange of freight and cargo between modes, such as the FRATIS program. Technology helps to prevent or reduce congestion at terminals and on highways. With the volume increases projected, these improvements will be needed.

8. Closing Remarks

Erik Steavens thanked participants for their attendance and reminded the group about surveys and Twitter hashtags.

Marc Williams thanked participants, speakers, moderators, and consultants. He said the private and public sectors have to work together, and each has to understand how the other one works. The funding challenges Texas faces are real, but there are success stories. He urged participants to keep in touch via the www.movetexasfreight.com website.

Summit adjourned at 3:30 p.m.