

# Canada–U.S. Transportation Border Working Group

## Summary of Spring Plenary

March 3-4, 2015 – Portland, Maine

Prepared by the Volpe National Transportation Systems Center on behalf of  
the United States Federal Highway Administration

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## TERMINOLOGY

Term	Definition
BIIP	Border Infrastructure Investment Plan
BTB	Beyond the Border Action Plan
FAST	Free and Secure Trade Program, a commercial clearance program for known low-risk shipments entering the U.S. from Canada and Mexico and entering Canada from the U.S. This allows expedited processing for commercial carriers who have completed background checks and fulfill certain eligibility requirements.
Intelligent transportation systems (ITS)	The application of advanced information and communications technology to surface transportation in order to achieve enhanced safety and mobility while reducing the environmental impact of transportation.
NEXUS	U.S. Customs and Border Protection and the Canada Border Services Agency jointly cooperate in this program to simplify passage for pre-approved travelers. The NEXUS program allows pre-screened travelers expedited processing by United States (U.S.) and Canadian officials at dedicated processing lanes at designated northern border ports of entry. <sup>1</sup>
Port of entry	A location through which people and goods may enter a country.
Probe	A traveling vehicle equipped with sensors is called a “probe car,” and the data collected by those sensors are called “probe data.”
Ready lane	A lane specifically designated by U.S. Customs and Border Protection for travelers with RFID-enabled documentation. This includes NEXUS cards as well as enhanced drivers licenses and other such forms of identification.
RFID	Radio frequency identification, the wireless use of electromagnetic fields to transfer data for the purposes of automatically identifying and tracking tags (e.g., transponders) attached to objects (e.g., vehicles).
TBWG	Canada–U.S. Transportation Border Working Group
Variable message sign (VMS)	An electronic sign often used on roadways to provide and update information for travelers.

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<sup>1</sup> <http://www.cbp.gov/travel/trusted-traveler-programs/nexus>

## EXECUTIVE SUMMARY

This report summarizes the spring plenary meeting of the Canada–U.S. Transportation Border Working Group (TBWG), which took place on March 3-4, 2015, in Portland, Maine. The mission of the TBWG is to facilitate the safe, secure, efficient, and environmentally responsible movement of people and goods across the Canada-U.S. border. The TBWG is co-chaired by the U.S. Federal Highway Administration and Transport Canada. The TBWG brings together multiple transportation and border agencies, and other organizations, to coordinate transportation planning, policy implementation, and the deployment of technology to enhance border infrastructure and operations. As such, this forum fosters ongoing communication, information sharing, and the exchange of best practices to improve the transportation and safety and security systems that connect our two countries.

The March 2015 plenary included presentations and discussions from four committees, in addition to presentations on a variety of other topics. Action items and next steps for each committee include the following:

- **Border Infrastructure:** The team developing the *Border Infrastructure Investment Plan* (BIIP) will reach out to TBWG members for input on the BIIP 3.0 and developing the approach to performance measures.
- **Technology:** Research and implementation on border wait time systems and other intelligent transportation systems will continue. The Federal Highway Administration announced additional funding for border wait time projects and will ask TBWG members to participate in pilot projects.
- **Trade and Traffic Data:** The Ontario Ministry of Transportation and the Federal Highway Administration will host a series of workshops for stakeholders to discuss the border surveys that Ontario has already completed and potential future analyses. Christopher Dingman welcomes input from TBWG members to improve his NEXUS analysis.
- **Policy:** The Steering Committee will discuss ways to improve the structure of future plenary meetings based on suggestions offered by participants. The committee will also update the TBWG Action Plan.

More information on the TBWG is available online at [U.S.-Canada Transportation Border Working Group](#).

## **CALL TO ORDER AND WELCOMING REMARKS**

Tom Oommen of Transport Canada and Ken Petty of the Federal Highway Administration welcomed participants. Ken recognized Roger Petzold, who recently retired from the Federal Highway Administration, for his many years of service and for his many contributions in support of the U.S.–Canada Transportation Border Working Group (TBWG).

Cheryl Martin, Assistant Division Administrator of the Maine Division Office of the Federal Highway Administration, provided a local welcome. She lauded the goals of the TBWG and encouraged participants to take advantage of the opportunities for networking and relationship building. She urged all parties to use this platform to address issues proactively.

## **BORDER INFRASTRUCTURE SESSION**

Committee co-chairs, Christopher Dingman of the Federal Highway Administration and Melissa Dawn Newhook of Transport Canada, introduced the border infrastructure subcommittee. The border infrastructure subcommittee focuses on developing and maintaining a comprehensive understanding of border crossing facilities and of the scope of potential improvements at, or in support of, international crossings between the U.S. and Canada. More information is available at:

[Border Infrastructure Coordination Subcommittee.](#)

## **RAINY RIVER INTERNATIONAL BRIDGE PROJECT UPDATE**

Joe McKinnon of the Minnesota Department of Transportation presented on the estimated \$40 million project to update a bridge crossing between Baudette, Minnesota and Rainy River, Ontario. The state and provincial governments have a cooperative agreement to update the bridge together and recently entered the preliminary design phase. They expect to complete construction by 2020.

The towns of Baudette, Minnesota and Rainy River, Ontario originally built this truss bridge in 1959. In 1988, ownership of the bridge was transferred to the State of Minnesota and the Province of Ontario. Minnesota found the bridge was eligible for the National Register of Historic Places in the U.S., but engineering studies uncovered various insufficiencies and both municipalities agreed that rehabilitation of the bridge would not be viable in the long term. The state and province plan to replace it.

The cooperative agreement outlines a coordinated process to do the following:

- Prepare environmental documents for regulatory approval.
- Investigate environmental issues.
- Research bridge type options.
- Recommend bridge type and location.
- Prepare and drill foundations and other geotechnical considerations.

A consulting firm will conduct those activities, and the governments of Minnesota and Ontario will share costs evenly. The contract scope of work stipulates that the contractor must fulfill the requirements for both Ontario and Minnesota. In many cases the requirements for regulatory approval are similar, yet slightly different. The consultant will develop separate environmental documents. Some aspects of the scope of work will involve the same tasks for both governments, such as design standards, project delivery and procurement options, and operations and maintenance options.

Contact Joe McKinnon at [joseph.mckinnon@state.mn.us](mailto:joseph.mckinnon@state.mn.us) for more information.

## **CANADA BORDER SERVICES AGENCY UPDATE**

Sylvain Cyr, of the Canada Border Services Agency, presented an update on behalf of his agency.

### **Current Conditions and Challenges**

- Since 2000 the agency has invested over \$300 million to modernize and improve the infrastructure at ports of entry across Canada.
- Investment has focused on ports of entry with large traffic volumes, and particularly those with large commercial volumes, “designated commercial offices.”
- Most of the ports with “designated commercial offices” are functional and adequate. The agency has either redeveloped or is in the process of redeveloping most of them.
- Some port infrastructure is suffering from weathering and fatigue; the agency faces challenges in securing sufficient capital to maintain the operational integrity of existing facilities.

### **Update on Infrastructure Projects**

#### ***Lacolle, Quebec***

The new port of entry at Lacolle will have 13 regular travel lanes and 2 NEXUS lanes. Currently the port only has nine lanes. The agency anticipates that the project will be complete by October 2017. The agency also received funding to replace the commercial part of this port, and expects to complete the replacement by September 2015. The new commercial inspection facilities will include six offload examination bays, along with expanded office and enforcement capacity.

#### ***Emerson, Manitoba***

This project will construct a dedicated commercial bypass lane. The commercial section will have three booths, including one Free and Secure Trade Program (FAST) lane. This project will likely be complete by the end of 2017.

#### ***North Portal, Saskatchewan***

This project will provide a new primary canopy to allow commercial vehicle access, one new bi-level primary lane with expanded queuing capacity, and expanded commercial capacity for one offload area. The agency has secured the additional land required to implement the project, and expects to complete this project by 2018.

### ***Aldergrove, British Columbia***

This project will provide five primary inspection lanes, two commercial lanes, a NEXUS lane, and a commercial offload examination facility. The current port only has three primary inspection lanes and does not have a commercial offload examination facility. Once complete, this project will help to relieve congestion because it will help to ease traffic at other Cascade Gateway border crossings on the British Columbia – Washington border. Project completion is expected in April 2016.

### ***Small Ports Infrastructure Replacement Initiative***

The Canada Border Services Agency started this initiative one year ago to increase the investment in smaller ports of entry. Now with additional funding for staff, there are always at least two officers on duty, even at smaller ports of entry. Port replacements at Coronach and West Poplar (Saskatchewan) are already complete, and those in Monchy and Willow Creek (Saskatchewan) and Morses Line (Quebec) are underway. Commercial vehicles can pass through these ports of entry, but there are no offloading areas to inspect merchandise. However, border officials can refer vehicles elsewhere if an inspection is necessary. The Morses Line replacement will include a one-year pilot to test a system for remote processing of travelers.

### ***St. Leonard, New Brunswick***

This port of entry has several safety issues due to its design and layout. Additionally, erosion is causing the land near the river to disappear. In order to remedy these problems, the Canada Border Services Agency plans to acquire land and construct a new port of entry. The project will likely be completed by fall 2016.

### ***Stationary Large-Scale Imaging System***

At the Pacific Highway port of entry, the Canada Border Services Agency is investing in a stationary, large-scale imaging system that will increase processing capacity and expedite commercial examinations. The project will likely be complete by fall 2016. Previously, the agency has only used mobile imaging systems.

### ***Recent Government Announcements***

On November 24, 2014, the Canadian government announced the allocation of \$440 million to expedite the replacement of border infrastructure. This funding will build on work recently completed and currently underway to improve border infrastructure at several ports of entry. Thus far, work is planned at Boundary Bay (Tsawwassen), British Columbia; Boissevain, Manitoba; and Sprague, Manitoba. Further announcements will be coming in the weeks and months ahead.

## **PUBLIC BORDER OPERATORS ASSOCIATION**

Lew Holloway of the Niagara Falls Bridge Commission presented some infrastructure updates on behalf of the Public Border Operators Association.

### ***Blue Water Bridge***

The bridge will have a new electronic toll collection system by fall 2015. Span 1 is closed for resurfacing, which will be complete by June 2015. Contingency plans are in place with all stakeholders to keep traffic moving. The Blue Water Bridge Corporate Centre, which opened in 2011, houses Canada Border Services

Agency and Canadian Food Inspection Agency operations, brokers, and administration. The bridge faces some challenges. The Public Border Operators Association offered to contribute funds for site upgrades, but U.S. Customs and Border Protection and the General Services Administration are unable to commit funds to pay for the operating costs for those upgrades.

### **Sault Sainte Marie Bridge**

The plazas on both sides of the border will soon be replaced. On the U.S. side, the redevelopment will include 5 to 7 toll lanes with enhanced electronic tolling software and a new 10,000 square foot administration building. The \$8.9-million project will be complete in October 2015. On the Canadian side, Canada has allocated \$51.6 million for new facilities for the Canada Border Services Agency, which will be complete in 2018.

### **Thousand Islands International Bridge**

The Beyond the Border (BTB) Action Plan identified the rehabilitation of the Lansdowne port of entry as a priority. A new facility will house the Canada Border Services Agency passenger and commercial traffic operations under one roof with nine primary travelers and four commercial primary inspection lanes. The project will be complete by 2018.

### **Seaway International Bridge**

The New North Channel Bridge opened new approaches and toll facilities to traffic in January 2014. The demolition of the old high-level structure is underway with a completion timeline in 2016. Completion of improvements to the approaches and final alignment of roadways are planned for 2016-17. A new Canada Border Services Agency building opened in August 2014. No final decision has been communicated on the location of future permanent facilities.

### **Ambassador Bridge Enhancement Project**

This project would include a new six-lane span, dedicated FAST/NEXUS lanes, connections with existing border agency plazas and resources, and the relocation of a Canada Border Services Agency commercial inspection facility from an offsite location to a newly constructed facility onsite. The \$700-million project is privately financed. Transport Canada will initiate a 60-day public consultation period in March 2015 as part of the federal permitting process.

### **Detroit Windsor Tunnel**

A 2014 plaza expansion added new Canada Border Services Agency facilities, including expanded commercial and NEXUS lanes. Northbound and southbound plazas have electronic tolling in place. The tunnel will be operated by a concession at least through 2040.

### **Lewiston-Queenston Bridge**

Phase I of a project to upgrade the bridge is in progress. A realignment of Interstate 190 to the North will create more space for a new plaza on the U.S. side. A new duty-free facility is under construction and will be complete in 2016. Remaining phases are on hold pending funding from U.S. Customs and Border Protection and/or the General Services Administration.



### Whirlpool Bridge

An upgrade added two new NEXUS booths in each direction, which opened in 2014. On the U.S. side, this replaced two of three primary inspection lanes. On the Canadian side, the NEXUS booths were in addition to the one existing primary inspection lane.

### Rainbow Bridge

The Niagara Falls Bridge Commission paid for the expansion of a bus processing center on the Canadian side.

### Peace Bridge

The Peace Bridge has several recently completed or upcoming upgrades:

- Widening of the U.S. bridge approach finished December 2014.
- Renovation of the U.S. commercial warehouse is in progress and will be complete by February 2016.
- Bridge re-decking will begin October 2015 and conclude by May 2018.
- Widening of the bridge lanes in Canada will begin summer 2015 and conclude by May 2016
- Replacing of U.S. radiation portal monitors will begin March 2015 and conclude by April 2015. The new monitors will better distinguish problematic radiation and therefore avoid unnecessary delays.

## BORDER INFRASTRUCTURE INVESTMENT PLAN UPDATE

Melissa Dawn Newhook of Transport Canada, Chris Dingman of the Federal Highway Administration, and Sylvain Cyr of the Canada Border Services Agency presented an update on the *Border Infrastructure Investment Plan* (BIIP). The BIIP is one component of the border infrastructure initiative under the *Beyond the Border* (BTB) Action Plan. Each edition of this bilateral document provides information collected at the Federal, State, Provincial, and local levels on border infrastructure investments and proposed projects for the 25 major and 34 medium land ports of entry on the Canada-U.S. border. Although a separate BTB initiative, the *Small and Remote Port of Entry Work Plan Strategy* is an annex to the BIIP. It reports progress on service-oriented and cost-effective strategies that the Canada Border Services Agency and the U.S. Customs and Border Protection are undertaking for 60 small and remote ports of entry. The BIIP fosters bilateral coordination on infrastructure projects and planning. BIIP version 2.0 is now available at [www.tc.gc.ca/media/documents/policy/BIIP\\_20.pdf](http://www.tc.gc.ca/media/documents/policy/BIIP_20.pdf) and [www.dhs.gov/sites/default/files/publications/border-infrastructure-investment-plan-december-2014\\_0.pdf](http://www.dhs.gov/sites/default/files/publications/border-infrastructure-investment-plan-december-2014_0.pdf).

### Performance Measures

The BTB Action Plan states that Transport Canada, the U.S. Department of Transportation, the Canada Border Services Agency, and U.S. Customs and Border Protection will use the BIIP to report on performance measures related to:

- Increased capacity
- Number and percentage increase in secondary inspection bays

- Amount and percentage increase in space for secondary inspections
- Changes in border wait times
- Reduction in environmental impacts, including greenhouse gas emissions

In light of this, the BIIP team is considering how best to measure and report on progress. The team plans to address the potential approach to performance measures in the next iteration of the BIIP, and they seek input from the TBWG. Key questions include:

- Are these the most appropriate measures (i.e., do they capture relevant progress)?
- Are they quantifiable?
- Do we have the data/means to measure?
- Where does the responsibility for the provision of information for each measure lie?
- Are there other issues with providing the information (e.g., security concerns)?

Please submit input on performance measures to Melissa Dawn Newhook ([melissadawn.newhook@tc.gc.ca](mailto:melissadawn.newhook@tc.gc.ca)), Chris Dingman ([christopher.dingman@dot.gov](mailto:christopher.dingman@dot.gov)), Sylvain Cyr ([sylvain.cyr@cbsa-asfc.gc.ca](mailto:sylvain.cyr@cbsa-asfc.gc.ca)), or Daniel Hayes ([daniel.b.hayes@cbp.dhs.gov](mailto:daniel.b.hayes@cbp.dhs.gov)).

### **Remote Traveler Processing Pilot**

The BTB Action Plan commits the Canada Border Services Agency and U.S. Customs and Border Protection to coordinate investments and enhance service at small and remote ports of entry. To address this, the Canada Border Services Agency will pilot remote traveler processing technology at two sites this year: Morses Line, Quebec (expected to begin in spring 2015) and Piney, Manitoba (expected to begin in summer 2015). The pilot will run for one year. After analyzing the results, the Canada Border Services Agency will recommend next steps.

During the pilot phase, travelers arriving at the port of entry outside of normal business hours will interact with a border services officer located at a remote processing center through videoconferencing at a kiosk. Additional cameras will allow the officer to see the traveler and the vehicle. The pilot will be open to Canadian and U.S. citizens, Canadian permanent residents, and lawful U.S. permanent residents. However, only pre-approved (registered) members will be able to use the pilot at Piney, Manitoba. The use of different approaches (registered vs. non-registered) at each pilot site will help determine which approach is more suitable. The small and remote annex in the next BIIP will provide an update on the progress of the pilot.

### **Next Steps**

Next steps for the BIIP include the following:

- Finalize the work plan to complete BIIP 3.0 (tentatively targeting December 2015).
- Begin consultations with Provinces, States, and border operators (tentatively scheduled for April and May of 2015).
- Discuss performance reporting with partners and stakeholders.
- Advance infrastructure projects and opportunities for the 25 major and medium ports of entry.
- Develop recommendations for the small and remote border crossings.

## TECHNOLOGY SESSION

Committee co-chairs, Julie Irvine of Transport Canada and Tiffany Julien of the Federal Highway Administration, introduced the technology subcommittee and explained its purpose. This subcommittee promotes the use of intelligent transportation systems at the border, such as border information flow architecture, automated systems to measure border wait times, and other tools. More information is available at: [Technology Subcommittee](#).

## TRINATIONAL BORDER WAIT TIME PEER EXCHANGE

Travis Black, of the Federal Highway Administration, and Julie Irvine, of Transport Canada, presented an overview of the Canada-U.S.-Mexico Border Wait Time Peer Exchange that took place in Phoenix, Arizona on December 9 and 10, 2014. The objective of the exchange was to help Federal agencies, State and Provincial departments of transportation, local planning organizations, bridge authorities, and other organizations understand approaches and tools for collecting and using border wait time data to improve outcomes and achieve performance goals and targets. Automated systems that collect and disseminate information on border wait time provide key benefits:

- Provide accurate information to the users of the data.
- Improve predictability and reliability.
- Reduce traveler delays and congestion.
- Improve efficiency in the management of border resources.
- Enhance economic competitiveness.

Discussion topics at the exchange included the following:

- Performance measures.
- Definitions and metrics.
- Past, current, and future projects and systems.
- Data storage and data mining.
- Future research trends and technologies.

Participants discussed lessons learned to inform future automated border wait time efforts, including the following:

- Set achievable goals and expand systems incrementally.
- Consider who will use the data and how it will be used.
- Ensure thorough detail in data purchase agreements.
- Develop MOUs for data sharing, where appropriate.
- Consider funding issues—short and long term.
- Ensure consistency with other systems.

Participants brainstormed ideas for research and other next steps and identified the following needs:

- Accurate, reliable and complete data on border wait time, including origin and destination data.

- Common set of metrics, definitions, techniques, and performance measures.
- Holistic approaches to managing and reducing border wait time (e.g., traffic management centers).
- Best practices for disseminating data to the public.
- Coordination and partnerships.
- Using border wait time data to make decisions and direct policy.

Outcomes from the exchange will help stakeholders including the TBWG and the *U.S.–Mexico Joint Working Committee on Transportation Planning* (JWC) prioritize next steps to advance border wait time tools, technology, and information sharing. Contact Travis Black ([Travis.Black@dot.gov](mailto:Travis.Black@dot.gov)) or Julie Irvine ([Julie.Irvine@tc.gc.ca](mailto:Julie.Irvine@tc.gc.ca)) with questions or to join the steering committee that will advance next steps.

## **ESTIMATING TRUCK BORDER CROSSING TIMES USING GEOSPATIAL DATA**

Andrew Carter, of Transport Canada, presented about a method for estimating truck border crossing times using geospatial data. Eventually Transport Canada plans to use this method to estimate crossing times at all major ports of entry. Andrew works with the Transportation and Economic Analysis Group of Transport Canada, which analyzes the current and future performance, capacity, and resilience of the Canadian transportation system. Their work on supply chains has several goals:

- Provide objective multimodal data.
- Provide performance measurement of Canada’s supply chains.
- Provide an analytical framework to identify areas of concern.

### **Data Source**

A third-party provider of satellite tracking services compiles data on a sample of truck activity and provides it to Transport Canada. Each record contains the date, time, and geographic coordinates from each satellite observation, but it does not include information about the goods, origin, or destination. The frequency of satellite observations that a given truck emits as it travels varies across firms and by geographic location (e.g., the frequency often increases as a truck approaches the border).

### **Methodology for Building Cross Border Trips and Estimating Wait Times**

The Transport Canada analysts establish a rectangular “geofence” in the vicinity of a border crossing and then program a script that identifies cross border trips with the use of that geofence. When a truck records a satellite observation outside of the geofence, then inside, and then outside again, the script identifies that as a probable cross border trip. Figure 1 shows an example of a geofence. The analysis defines “border wait time” as the elapsed time from the last observation before a truck enters the geofence to the first observation when a trip exits the geofence. The analysis removes outliers and makes adjustments to account for unique circumstances.



**Figure 1. Illustration.** The red box is a geofence used to estimate truck border wait times at the Bluewater Bridge. The blue dots represent satellite observations of trucks.

## Results

One major finding from the analysis is that truck border wait times during busy periods (the 95th percentile) are typically longer and more variable at crossings with a bridge. One reason is that bridges have limited space, so there is less ability to separate commercial from passenger traffic. At land crossings, typically found in less populated areas, little variability exists in the 95th percentile and there is no correlation with passenger vehicle traffic.

## Next Steps

Transport Canada plans to do further research to investigate the border crossing profiles of U.S.-bound trucks. The agency will research origins and destinations to compare the impact of delay on short-haul versus long-haul trips. To do that, Transport Canada is working with the University of Windsor Cross Border Institute to combine geospatial data with land use and registry information in order to identify the named origins and destinations of the data. Ultimately, this may help in estimating the additional operating expenses associated with border delays. The agency is interested in sharing best practices and developing a common set of metrics related to this type of research.

## INCORPORATING BOOTH STATUS DATA INTO A REGIONAL ARCHIVE

Melissa Fanucci of the Whatcom Council of Governments discussed dynamically changing lane types and the challenge that this may pose for some automated systems collecting border wait time data. She described a pilot program that addresses this by incorporating a data feed from U.S. Customs and Border Protection.

At select ports of entry, including the Peace Arch Bridge, U.S. Customs and Border Protection uses dynamically changing lane types to optimize operations at any given moment based on current demand. For example, if radio frequency identification (RFID) readers detect that many NEXUS users are approaching the crossing, the agency can use overhead signs to expand the number of NEXUS lanes relative to standard traffic lanes. This reduces wait times and improves efficiency. However, it also leads to inaccuracies in automated data collection systems with vehicle detectors that report wait times based on the assumption that lane types are static.

To address this, the Whatcom Council of Governments and partners augmented the border wait time algorithm with real-time data from U.S. Customs and Border Protection on current lane status. U.S. Customs and Border Protection has already made this data available for the four ports of entry in the Cascade Gateway Region and the British Columbia Ministry of Transportation and will soon make changes to the automated border wait time system to incorporate the information.

If the solution at the Peace Arch border crossing proves successful, U.S. Customs and Border Protection can make the same data available for other port locations. In the future the Canada Border Services Agency may also implement dynamically changing lane types. That will require a similar effort to integrate real-time data on lane status into the border wait time system on northbound traffic.

The data feed from U.S. Customs and Border Protection also provides a wealth of other data aside from lane status, as depicted in Figure 2 and Figure 3.

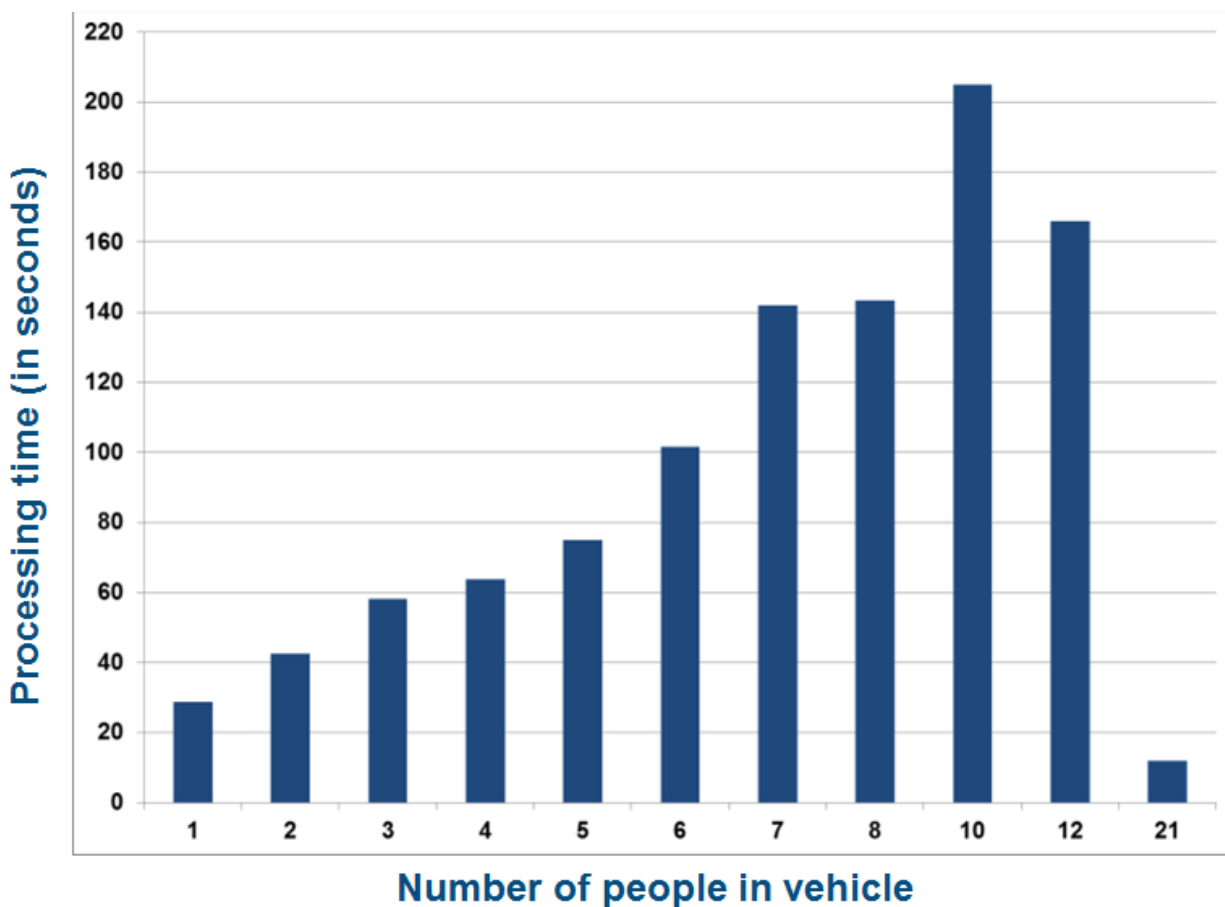


Figure 2. Chart. Processing time by person count at Peace Arch port of entry, southbound, February 21-25, 2015.

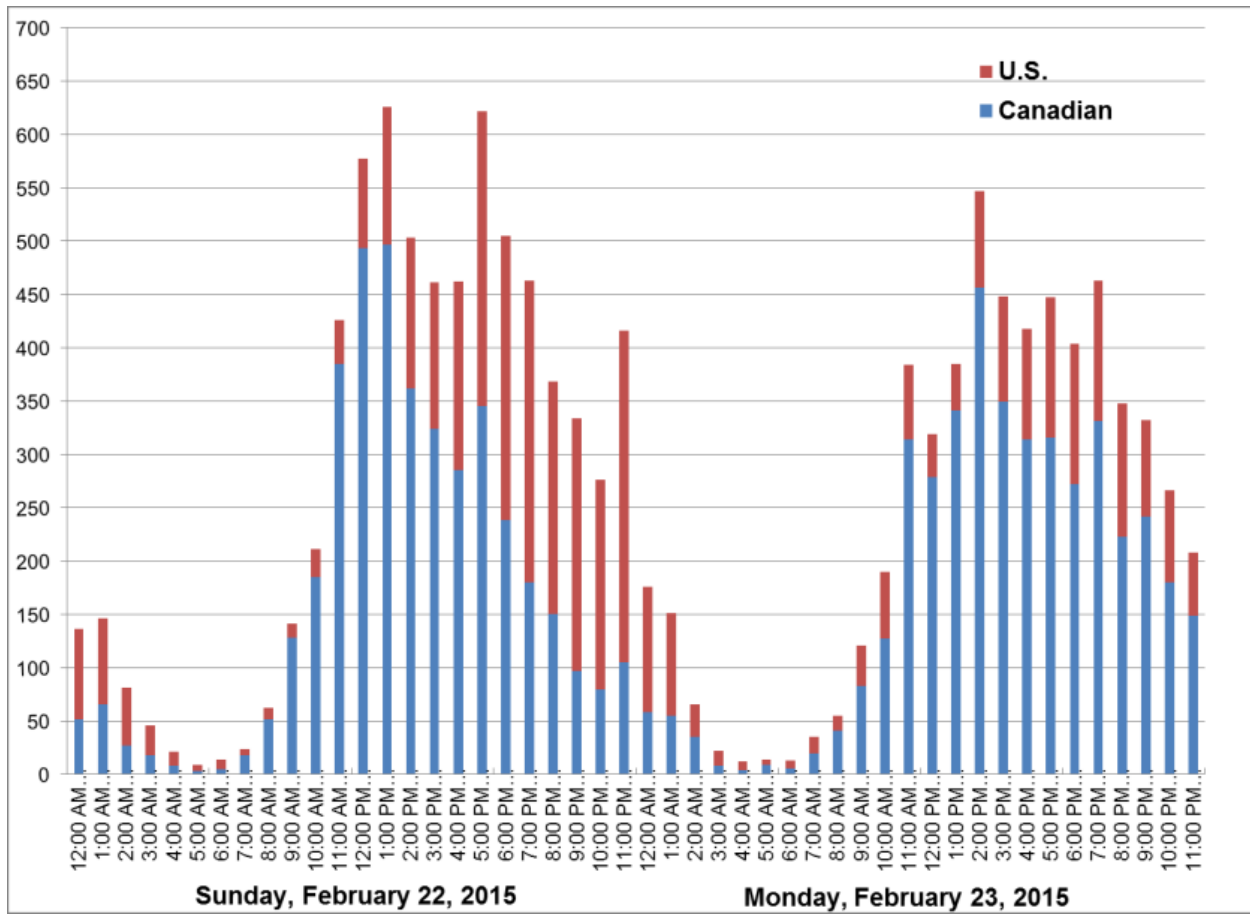


Figure 3. Chart. Nationality by time of day at Peace Arch port of entry, southbound, February 22-23, 2015.

Contact Melissa Fanucci at [Melissa@wcog.org](mailto:Melissa@wcog.org) for more information, or visit the [Cascade Gateway Border Data Warehouse](http://www.cascadegatewayborderdatawarehouse.com/Crossing) ([www.cascadegatewayborderdatawarehouse.com/Crossing](http://www.cascadegatewayborderdatawarehouse.com/Crossing)).

## TRADE AND TRAFFIC DATA SESSION

Committee co-chairs, David Franklin of the Federal Highway Administration and Iris Fawcett (on behalf of Rob Tardif) of the Ontario Ministry of Transportation, introduced the trade and traffic data subcommittee. The trade and traffic data subcommittee takes a multi-jurisdictional approach to the identification of various data needs, and explores opportunities to work collaboratively on data collection activities. More information is available at: [Trade and Traffic Data Subcommittee](#).

## ONTARIO BORDER SURVEYS

Iris Fawcett of the Ontario Ministry of Transportation presented about a partnership between the Ontario Ministry of Transportation and the Federal Highway Administration to develop passenger and commercial vehicle origin-destination databases to support infrastructure planning. As a next step, the agencies plan to host a series of workshops for a broad array of stakeholders to discuss the border surveys that Ontario has already completed and potential future analyses.

The Ontario Ministry of Transportation is conducting commercial and passenger vehicle intercept surveys at Ontario's 14 border crossings with New York, Michigan, and Minnesota. In order to make the survey results more useful, the agency plans to prepare a user guide to help people interpret the results. The agency also plans to prepare a guide on best practices for the U.S. deployment of an origin-destination intercept survey. Finally, they plan to develop case studies to demonstrate potential analyses based on the survey data and support other agencies in developing models. The commercial vehicle intercept surveys are complete and a draft report outlining the time series travel patterns related to commercial vehicle activity will be available upon request in April 2015. Figure 4 and Figure 5



show sample visualizations based on some of the survey data.

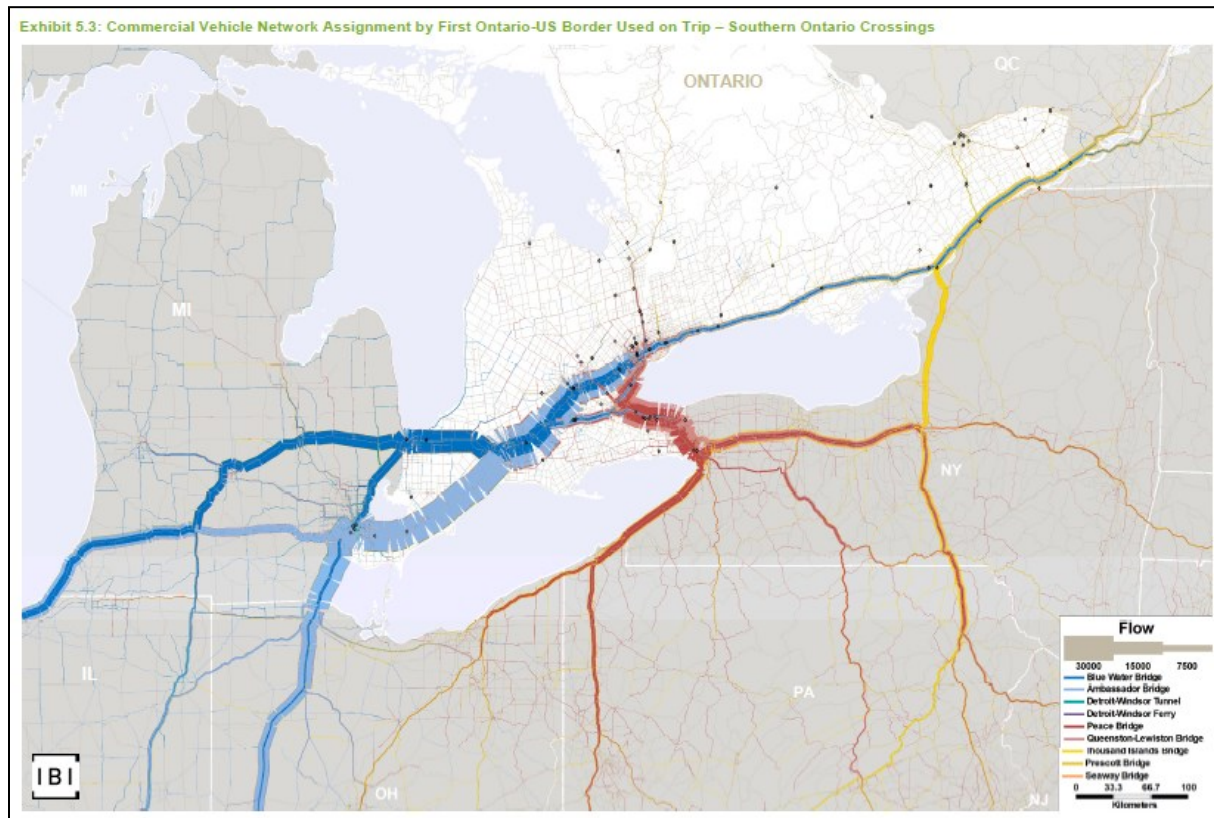


Figure 4. Illustration. Based on data from the commercial vehicle survey, this illustration shows an intensity map of truck volumes along trade corridors to inform investment prioritization. Thicker lines correspond to higher traffic volumes. Colors show the traffic associated with a particular crossing. This suggests that the Toronto area in Ontario, Canada is a focal area for attracting and generating commercial trips.

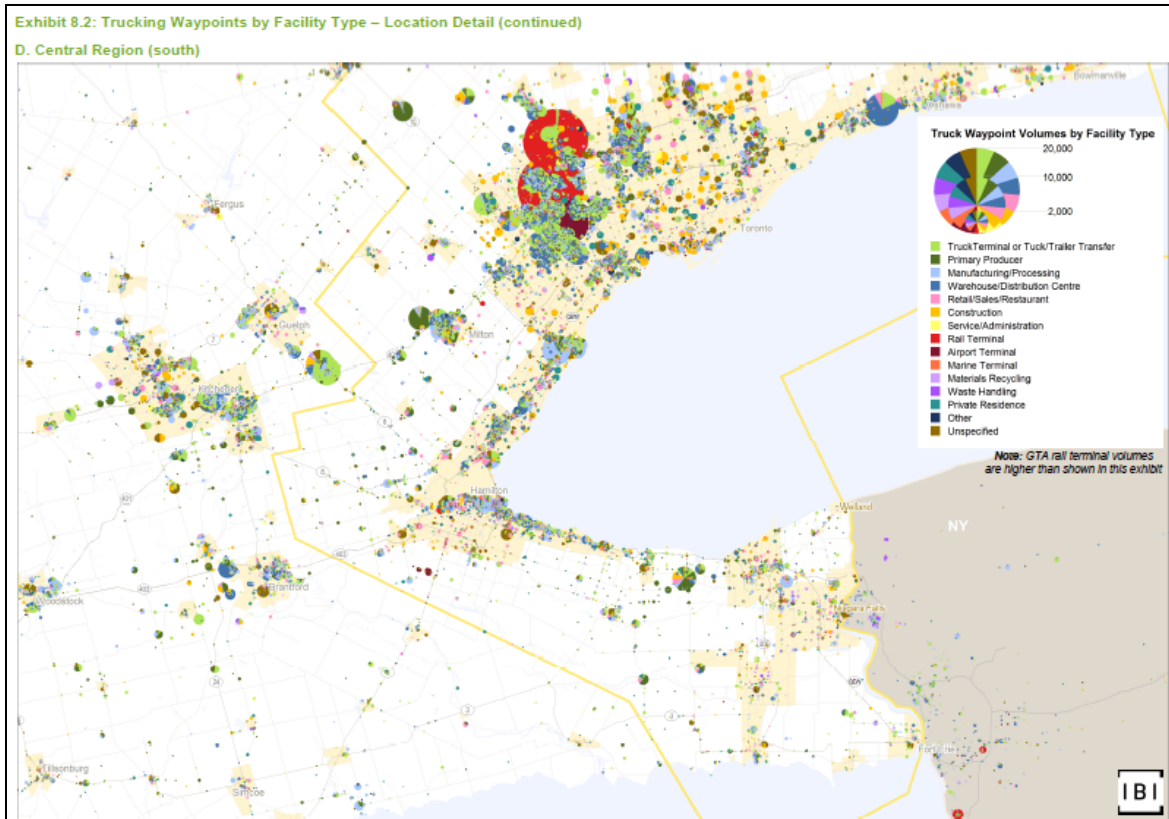


Figure 5: Illustration. This illustration shows truck waypoint volumes by facility type. The commercial vehicle survey collects address level detail tied to facilities with micro commodity input/output data to support model development. A potential next step is to align and integrate this data with the U.S. National Freight Analysis Framework and the border transportation models of metropolitan planning organizations.

### Next Steps

The Ontario Ministry of Transportation and the Federal Highway Administration would like to hold workshops on the commercial vehicle survey, and the agencies would like input from the TBWG on venues and dates. Contact Rob Tardif at [Rob.Tardif@ontario.ca](mailto:Rob.Tardif@ontario.ca) to provide input.

### NEXUS & BORDER WAIT TIMES

Chris Dingman of the Federal Highway Administration presented about a study that he conducted on the trusted traveler program using data from the [Cascade Gateway Border Data Warehouse](http://www.cascadegatewaydata.com/Crossing) ([www.cascadegatewaydata.com/Crossing](http://www.cascadegatewaydata.com/Crossing)). As a result of the study, Chris arrived at the following conclusions:

- The *Cascade Gateway Border Data Warehouse* is an excellent tool for analyzing traffic volume and delay at the border.
- The benefits of the NEXUS program are significant and can be quantified.
- Agencies should consider enhanced marketing efforts to publicize the benefits of trusted traveler programs.

## POLICY SESSION

Committee co-chairs, Hugh Conroy of the Whatcom Council of Governments and Tom Oommen of Transport Canada, introduced the policy subcommittee. The policy subcommittee has two primary purposes: to advance specific initiatives, including those under the BTB Action Plan, and to liaise with research organizations doing work of interest to the TBWG. More information is available at: [Policy Subcommittee](#).

## GREAT PLAINS STATES/PRAIRIE PROVINCES STEERING COMMITTEE REPRESENTATION

David Lettner of Manitoba Infrastructure and Transportation presented about efforts to establish a regional committee that would represent the northern Great Plains/Prairies region at TBWG meetings. This would fulfill a similar function as the [Eastern Border Transportation Coalition](#) and the [International Mobility and Trade Corridor Program](#). David and colleagues first tried to establish such a group in 2009, but it did not gain traction at the time. Last year, David suggested the formation of a Western Border Network. Representatives from western Canadian Provinces and U.S. States met via teleconference in 2014 to discuss the formation of that network. The next meeting will likely take place in April 2015, and the group will likely have a more cohesive representation and voice in time for the next TBWG plenary in fall 2015.

## EVALUATING THE FEASIBILITY OF AN RFID PILOT—GROUP DISCUSSION

Hugh Conroy of the Whatcom Council of Governments discussed a proposal to evaluate the feasibility of an RFID pilot program. The proposal is to provide RFID-enabled pass cards to high-frequency travelers free of charge. This could significantly reduce wait times and congestion at the border because a small number of the highest-frequency travelers are responsible for a large percentage of all cross border trips. The Whatcom Council of Governments is working on modeling and other research to demonstrate that there is a business case for investing public funds in this based on the expected benefits in relation to the costs. The agency has already produced some initial results showing the estimated impact on wait times for various rates of RFID penetration at a specific crossing.

The proposed RFID pilot program is not meant to dilute the importance of NEXUS. Although NEXUS continues to be an important program for ensuring efficient border travel, some frequent travelers choose not to participate in NEXUS. Issuing those travelers RFID cards would likely benefit everyone by reducing processing times south-bound. Travelers could not be expected to enroll in such a program on their own because U.S. Customs and Border Protection Ready lanes only reduce processing times by 20 seconds or so, and a traveler still has to wait in the same lane as standard travelers. In the aggregate, however, those reductions in processing times could mean a significant benefit for everyone else at the back of the queue, and it would provide other significant system-level benefits.

The group agreed that this would be a good item to add to the TBWG Action Plan, as the decision to do an RFID pilot would need support from multiple stakeholders and decisionmakers. David Lettner suggested that the next step might be to do an economic analysis, similar to the analysis that Chris

Dingman did on the NEXUS program. That could allow an interesting comparison, showing the level of infrastructure investment that would be necessary to generate the same benefit.

Hugh noted that the Whatcom Council of Governments would ideally like the pilot to be bi-directional. Chris Dingman indicated that Jim Pattan of U.S. Customs and Border Protection is interested in the idea.

## **IMPROVEMENTS TO THE STRUCTURE FOR FUTURE MEETINGS**

Participants offered several suggestions to improve future meetings, including the following:

- Reserve more time to digest and discuss the key issues that presentations raise.
- Cover fewer topics per day in order to address those topics in greater depth.
- Include breakout sessions and subsequent reporting sessions.
- Consider establishing a different structure and/or purpose for the fall versus the spring TBWG meetings. For example, the Transportation Association of Canada has two meetings per year; one is a policy meeting and one is a technical meeting.
- Consider methods to make the TBWG more action-oriented. For example, at the semiannual meetings the TBWG could develop proposals for the subcommittees to work on in the intervening months before the next meeting.

The TBWG Steering Committee will discuss ways to improve the structure of future meetings based on suggestions offered by participants. Contact Tom Oommen for further information:

[tom.oommen@tc.gc.ca](mailto:tom.oommen@tc.gc.ca).

## **EMERGENCY BRIDGE OPERATIONS: SNOW DISASTER IMPACT AND IMPROVED TRAFFIC INFORMATION SYSTEMS TO THE RESCUE**

Ron Rienas of the Buffalo and Fort Erie Public Bridge Authority reported on the impacts of a major storm that took place in December 2014. Although the snowstorm did not directly impact the Peace Bridge or Niagara Falls Bridge, it did close the roads leading to and from the bridges from the south for four days. For that reason, the bridge authorities redirected Canadian southbound traffic away from the bridges.

During the storm event, the bridge authority relied on the Niagara International Transportation Technology Coalition ([www.nittec.org](http://www.nittec.org)), a binational traffic management entity, in posting updates to variable message signs on highways and in disseminating information to the media. The bridge authority also directly contacted trucking associations and asked them to avoid the bridges.

## **BORDER SECURITY IN THE FOURTH QUARTER OF THE OBAMA ADMINISTRATION**

Dr. Christopher Sands of the Hudson Institute presented his thoughts on the outlook of border security initiatives in the fourth quarter of the Obama administration. He listed several favorable signs that border activities may make significant progress, but he also identified some unfavorable signs that may indicate the opposite.

### **FAVORABLE SIGNS**

Dr. Sands noted that the 2014 Quadrennial Homeland Security Review is bolder than the prior edition. He highlighted the following priorities identified in the document:

- Secure and manage borders.
- Use risk-based strategies that are cost-effective.
- Emphasize cooperation with partner countries.

However, he noted that Canada is only mentioned twice.

Dr. Sands also noted some promising recent initiatives to advance commitments in the BTB Action Plan, including:

- In 2014, Canada and the U.S. opened the eGate pilot project that allows NEXUS members extended expedited passage at the Peace Bridge port of entry in Fort Erie, Ontario.
- As of July 2014, trusted traders importing goods into Canada can apply for “Customs Self-Assessment—Platinum,” which is available to importers who demonstrate that their business systems, internal controls and self-testing processes are effective and reliable at ensuring trade compliance. In addition, non-resident importers in the U.S. are now eligible to apply to the program. Previously, only importers residing in Canada or, in the case of corporations who had their head office in Canada or operated a branch office in Canada, were eligible to participate.
- The Canada Border Services Agency launched a new online Trusted Trader Portal that allows companies to apply for membership in the Partners in Protection program, and allows existing members to maintain their Trusted Trader membership. The Portal serves as the foundation for future phases of Trusted Trader enhancements, including the streamlined exchange of program information between the Trusted Trader and the U.S. Customs-Trade Partnership Against Terrorism (C-TPAT) portals.

### **UNFAVORABLE SIGNS**

Dr. Sands mentioned the following hindering factors:

- The Department of Homeland Security is facing challenges related to budget reductions.
- The Keystone Pipeline and other recent issues may have negatively impacted relations between Prime Minister Harper and President Obama.
- Upcoming elections in both countries may affect the positions that politicians take.

## LESSONS LEARNED FROM PAST TRANSITIONS

Dr. Sands presented some general lessons that can help border agencies and stakeholders to advance border activities in such a time of political transition:

- **Incrementalism works**—Small steps can bide time in periods of political transition while still advancing progress toward larger goals.
- **Planning works**—Investments in planning and preparations can pay dividends when new leaders assume office. Planning can demonstrate the importance and potential of an initiative.
- **Democracy works**—Representing the public and tempering the influence of special interest groups can help to steward the role of public agencies in serving the public.
- **Anticipation and communication work**—Anticipating and packaging the message about an agenda and making sure that it gets to the right people can build support.
- **Governors and premiers are powerful regional representatives**—These politicians can do a great deal to advance cross border relations and activities.

# **ECONOMIC IMPLICATIONS OF THE CANADA-U.S. BORDER CROSSINGS: APPLYING A BINATIONAL TRADE NETWORK MODEL FOR INTERNATIONAL FREIGHT MOVEMENTS**

## **SUMMARY OF RESEARCH**

Dr. JiYoung Park and Ha Hwang of the University of Buffalo presented about work that they are doing to model networks. These researchers are using analytical tools developed as part of “social network analysis” and repurposing those tools for use in “trade network analysis.” The model that they developed can estimate the economic costs and other impacts from highway network disruptions (such as natural disasters, epidemics, congestion, and delays).

To develop a model of a network, the researchers developed and combined datasets on the following four elements:

- Binational economic structure.
- Binational trade.
- Binational highway networks.
- Border wait times.

The network that they developed consists of nodes (origins, destinations, and border crossings) and edges (freight flows between nodes). They then analyzed and ranked the “centrality” of various border crossings within the network. Figure 6 and Figure 7 show maps of trade networks based on the analysis.



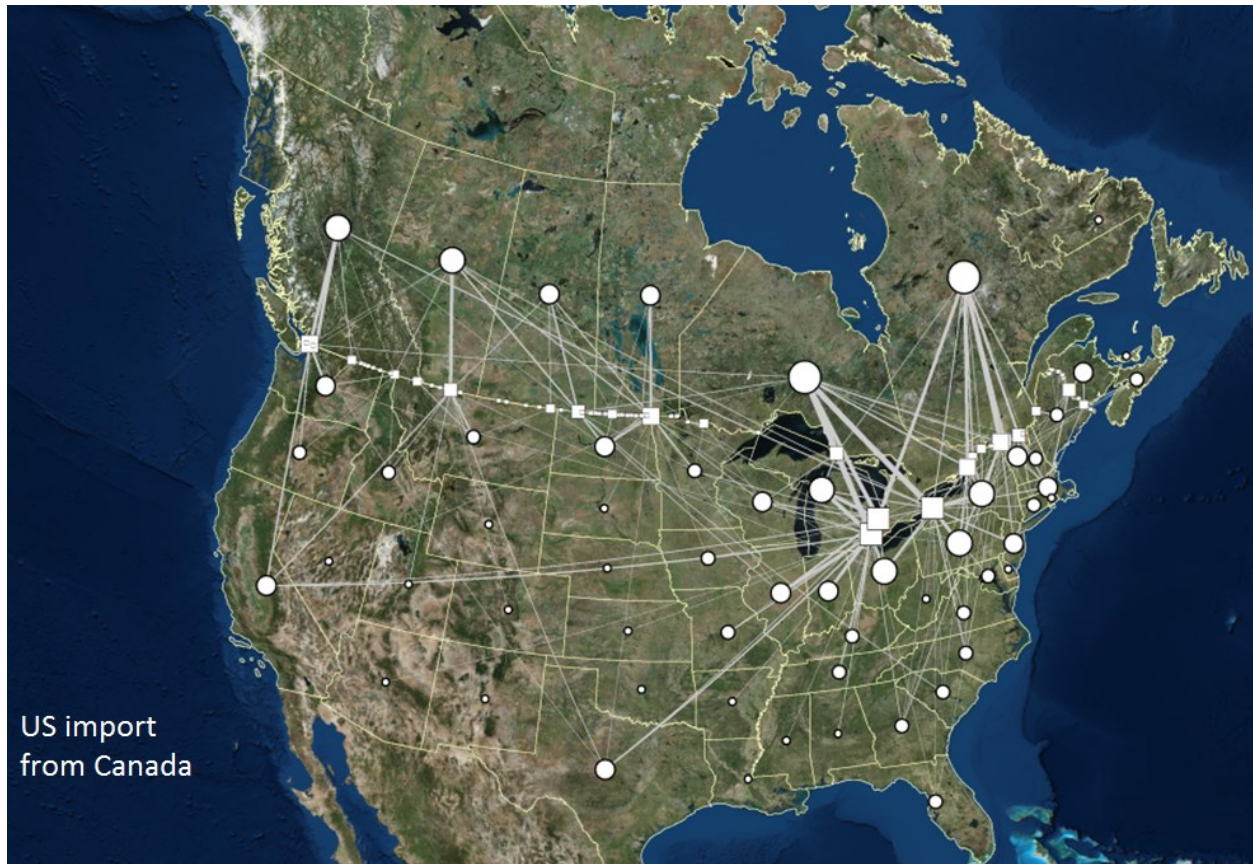


Figure 6. Illustration. Map showing the trade network for U.S. imports from Canada. Circles represent States and Provinces, squares represent crossings, and the weights of the lines indicate the relative trade volumes.





Figure 7. Illustration. Map showing the trade network for U.S. exports to Canada. Circles represent States and Provinces, squares represent crossings, and the weights of the lines indicate the relative trade volumes.

## CONCLUSIONS

The researchers drew the following conclusions from their analysis:

- Based on the trade network analysis the Detroit Ambassador Bridge, the Buffalo Peace Bridge, the Port Huron Bridge, the Blaine-Pacific Highway Crossing, and the Champlain Crossing are the top five border crossings in terms of the magnitude (dollar value) of trade flow.
- In terms of the total value of trade flow, Ontario in the East and British Columbia in the West are the dominant Provinces in Canada while Michigan, Ohio, Washington, and Illinois are the top States in the U.S.
- Binational trade activities are relatively localized in Canada (exports primarily originate from one Province and imports do not travel far after crossing the border into Canada) while those in the U.S. are dispersed nationwide.
- A small number of border bridges play a key role in connecting the U.S. and Canadian economies. An unexpected disruption at one of these border bridges could result in severe traffic delays, adversely impacting both regional and global supply chains.

## FUTURE DIRECTIONS

The team is planning to pursue the following next steps:

- Construct a full package of datasets and a binational version of the U.S. National Interstate Economic Model developed by researchers at the University of Southern California.
- Add additional data to create a trinational model for North America.
- Develop a model for metropolitan areas in each State and Province.
- Investigate whether an increase in border bridge capacity will reduce the congestion that adversely affects neighboring economies.
- Investigate the impact of a network disruption on tourism policy.
- Evaluate performance measures for border crossing infrastructure.

## OTTAWA AND WASHINGTON UPDATES

### TRANSPORT CANADA UPDATE

Tom Oommen of Transport Canada presented some updates from his department.

#### Economic Update

Cross-border truck traffic is 21 percent lower than the 2000 peak but over 10.7 million trucks still cross annually. Truck traffic at nearly all crossings has leveled off or declined since the early 2000s. Following the 2008 financial crisis, rail traffic has rebounded, but truck traffic has not. Rail traffic increased due to a tripling of crude oil exports without an increase in pipeline capacity. Structural changes in North American automotive industry have played a major role in the decline in cross-border movement of vehicles and parts. In 2014, the six busiest road border crossings represented 69 percent of all truck border movements. Figure 8 and Figure 9 show top binational exports and imports by commodity.

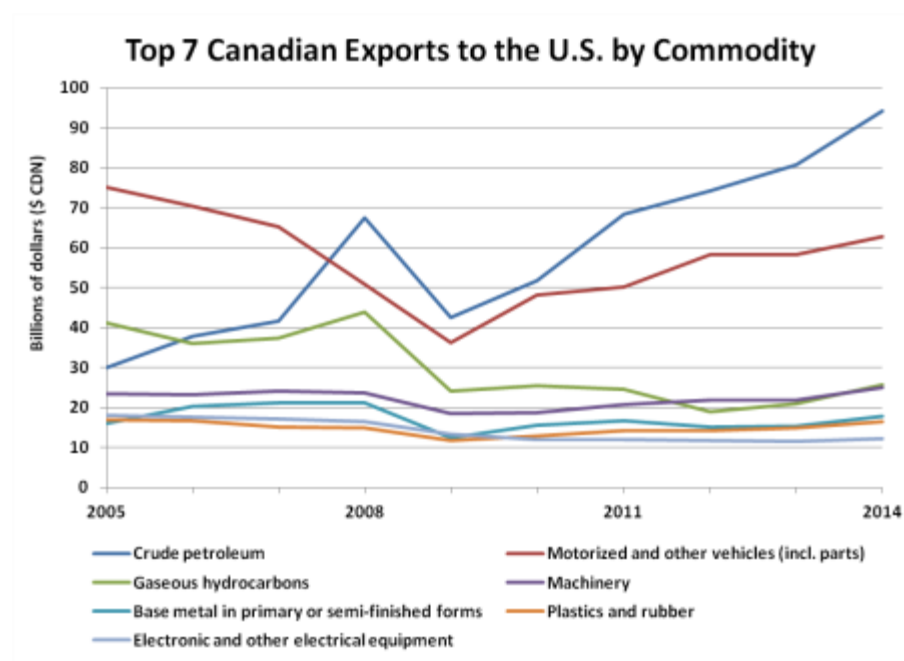


Figure 8. Chart. Top Canadian exports to the U.S.

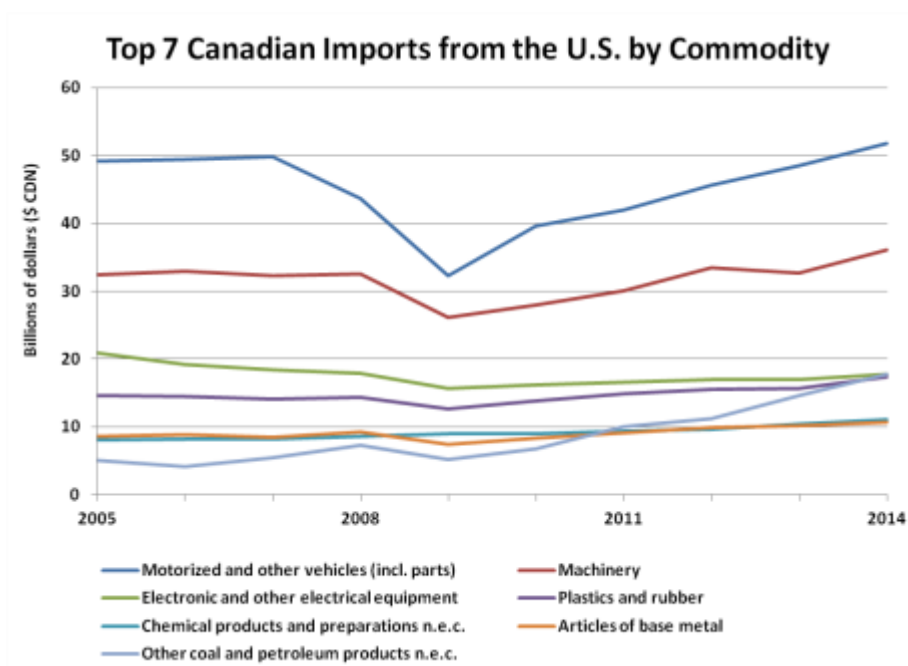


Figure 9. Chart. Top Canadian imports from the U.S.

### Infrastructure Investments

- Since 2007 Canada has announced more than 40 strategic infrastructure investments in nine Provinces under the \$2.1 billion Gateways and Border Crossings Fund.
- Canada has invested approximately \$1.4 billion in Asia-Pacific Gateway and Corridor Initiative infrastructure projects.
- The \$53 billion New Building Canada Plan will provide unprecedented funding for provincial, territorial, and municipal infrastructure.
- In November 2014, the Prime Minister of Canada announced \$5.9 billion in infrastructure investments, including \$440 million for border infrastructure upgrades.

### Reorganization of Crown Corporations Involved with International Bridges

As of February 2015, the “Federal Bridge Corporation Limited” comprises the amalgamation of three former entities: the Federal Bridge Corporation Limited, the St. Mary’s River Bridge Company, and the Blue Water Bridge Authority. The amalgamated corporation is responsible for Canadian interests in the Blue Water Bridge (Sarnia, Ontario/Port Huron, Michigan), Seaway International Bridge (Cornwall, Ontario/Massena, New York), St. Mary’s River Bridge (Sault Ste. Marie, Ontario/Sault Ste. Marie, Michigan), and Thousand Islands Bridge (Lansdowne, Ontario/Alexandria Bay, New York). The amalgamation will not impact the safety or ongoing operations of the bridges.

### Detroit River International Crossing

A public-private partnership will design, finance, construct, operate, and maintain this planned new crossing. The cost of the U.S. port of entry and inspection plaza will be repaid from future toll revenues. The Windsor-Detroit Bridge Authority is in the process of staffing the organization, acquiring property in Michigan, and completing design specifications.

### **Ambassador Bridge Enhancement Project**

The Canadian Transit Company and the Detroit International Bridge Company propose to replace the bridge, the Canadian approach, and the customs plaza in Windsor. On February 26, 2015, Transport Canada launched a 60-day public consultation period regarding this proposal:

[www.tc.gc.ca/eng/consultations.htm](http://www.tc.gc.ca/eng/consultations.htm). Following that, Transport Canada officials will make a recommendation to the Minister for consideration.

### **Transporting Grain by Rail**

The Canadian government took action to clear the grain backlog and strengthen Canada's reputation as a reliable source of supply for grain with the *Fair Rail for Grain Farmers Act*. The Act requires the Canadian National Railway and Canadian Pacific Railway to move minimum volumes of grain over the winter.

### **Freight Planning Initiatives**

The 2014 North American Leaders Summit resulted in a commitment to develop a North American Transportation Plan, beginning with freight. Transport Canada and Mexico's Secretariat of Communications and Transportation are participating in the U.S. Department of Transportation study of future freight and passenger flows in North America. A U.S.–Canada Freight Planning Peer Exchange in May 2015 will inform continuing efforts to improve freight infrastructure planning.

### **Progress on the Beyond the Border (BTB) Action Plan**

- Automated systems to collect border wait time data are now in operation at seven border crossings.
- Canada and the U.S. are negotiating a new comprehensive preclearance agreement. A preclearance pilot project at the Peace Bridge was concluded in January 2015.
- Canada announced investments of up to \$127 million in 2013 for major upgrades at four priority border crossings at Lansdowne, Lacolle, Emerson, and North Portal.
- The second Border Investment Infrastructure Plan (BIIP 2.0) was released on February 4, 2015.

### **The Year Ahead**

Ongoing initiatives already mentioned will continue in 2015, such as ratification and implementation of the new preclearance agreement, the Ambassador Bridge Enhancement Project, and the freight planning initiatives. Tom noted another new initiative that he expects will move into implementation in the next year: a North American Free Trade Agreement (NAFTA) commitment to facilitate truck access across borders, improving the efficiency of freight flows in North America. Tom encouraged TBWG members to participate in the plenary meetings to help make the TBWG more action-oriented.

## **CANADA BORDER SERVICES AGENCY UPDATE**

Sylvain Cyr of the Canada Border Services Agency presented an update from his agency.

### **Agency Goals**

Sylvain listed three primary goals for the Canada Border Services Agency:

- Secure the border strategically.

- Streamline and simplify the border experience.
- Advance global border management.

### 2015-16 Agency Priorities and Initiatives

Sylvain noted the agency has been increasingly effective and has made large investments in recent years, but there has been pressure to become even more efficient. This pressure has led to constant internal realignment and reprioritization. The agency is trying to improve efficiency through partnerships, automation, and other strategies. He described the following upcoming priorities:

- Increase efficiency and effectiveness of border management through:
  - Systems and processes transformation;
  - International and domestic engagement; and
  - Program integrity.
- Strengthen organizational resilience.

### Collaboration with U.S. Customs and Border Protection

The Canada Border Services Agency and U.S. Customs and Border Protection plan to continue advancing joint priorities, including the following:

- BTB action plan initiatives.
- Air traveler and trade modernization.
- Emerging operational priorities.

### Business Transformation

The Canada Border Services Agency is aligning its work with broader initiatives of the Canadian government, such as [Blueprint 2020–Getting Started–Getting Your Views](#), ([www.clerk.gc.ca/eng/feature.asp?pagelid=350](http://www.clerk.gc.ca/eng/feature.asp?pagelid=350)) which articulates a vision of a public service with four guiding principles. These are:

- An open and networked environment that engages citizens and partners for the public good
- A whole-of-government approach that enhances service delivery and value for money.
- A modern workplace that makes smart use of new technologies to improve networking, access to data and customer service.
- A capable, confident and high-performing workforce that embraces new ways of working and mobilizing the diversity of talent to serve the country's evolving needs.

### Strategic Principles

Sylvain described six principles that guide modernization for the agency:

- Push the border out by targeting and intercepting high-risk travelers early.
- Facilitate low-risk travel through fast and secure processing of low-risk travelers and goods.
- Make enforcement more effective and integrated through targeted and timely activities.
- Improve efficiency by modernizing business systems and streamlining processes.
- Increase harmonization with international partners, particularly the U.S.

- Excel at client service by providing quality service and prompt redress processes.

## U.S. CUSTOMS AND BORDER PROTECTION

Ruth Zolock delivered a U.S. Customs and Border Protection update on behalf of Lisa Dye. Section 559 of the U.S. *Consolidated Appropriations Act, 2014*, will help U.S. Customs and Border Protection obtain alternative sources of funding. This authority allows the agency to support requests for expanded services as well as improvements to infrastructure through both reimbursable service agreements and donation acceptance authority, respectively. Reimbursable services under Section 559 include customs, immigration, and agricultural processing; salaries for additional staff; and overtime expenses at airports. The new donation acceptance authority provides even greater flexibility, allowing U.S. Customs and Border Protection and the General Services Administration to accept donations of real or personal property or non-personal services to be used for construction, alterations, operation, or maintenance of a new or existing port of entry.

Ruth explained that the agency is working on establishing this program, and recently issued an initial call for proposals. In January, U.S. Customs and Border Protection received seven donation proposals, all for the southern border. The agency is evaluating them for operational efficacy and viability. For those interested in submitting or inviting proposals, information on the [Donation Acceptance Authority Proposal Evaluation Procedures and Criteria Framework](http://www.cbp.gov/document/guidance/section-559-donation-acceptance-authority-proposal-evaluation-procedures-and) is available online: <http://www.cbp.gov/document/guidance/section-559-donation-acceptance-authority-proposal-evaluation-procedures-and>. This is a pilot program, with a five year duration beginning in 2014. The next solicitation for proposals will likely occur in late 2015. Contact [lisa.m.dye@cbp.dhs.gov](mailto:lisa.m.dye@cbp.dhs.gov) with questions.

## FEDERAL HIGHWAY ADMINISTRATION

Ken Petty of the Federal Highway Administration presented some updates from his agency.

### *Beyond Traffic 2045*

This is a draft framework that the U.S. Department of Transportation developed on the future of transportation. It is also an invitation to the public to have a frank conversation about the state of the transportation system and how it will meet the needs and goals of the nation for decades to come. The document does the following:

- Discusses the major trends shaping our changing transportation system.
- Discusses the implications of these trends for each mode of transportation.
- Presents a description of a baseline future scenario—a future that may emerge from trends previously analyzed.

The U.S. Department of Transportation is soliciting input on the document and expects to issue a final report toward the end of 2015. More information and the draft document are available at: [www.dot.gov/BeyondTraffic](http://www.dot.gov/BeyondTraffic).

## Regulatory Cooperation Council

Prime Minister Stephen Harper and President Barack Obama created the U.S.–Canada Regulatory Cooperation Council in 2011 to facilitate closer cooperation and develop smarter and more effective



approaches to regulation. Bilateral work groups have been working together to construct new work plans. For example, the U.S. Department of Transportation is working with Natural Resources Canada on explosives containment. The council will post the new work plans and Regulatory Partnership Statements at [www.trade.gov/rcc/](http://www.trade.gov/rcc/) as they become available in spring 2015. Stakeholders will have opportunities to offer feedback to the work groups in the next few years.

### **Federal Aviation Administration Notice of Proposed Rulemaking**

The Federal Aviation Administration released a proposed framework of regulations that would allow routine use of certain small, unmanned aircraft systems in today's aviation system. The public will be able to comment for 60 days from the date of publication (February 15) in the Federal Register found at [www.regulations.gov](http://www.regulations.gov)). The agency will hold public meetings to discuss innovations and opportunities.

### **Transportation Authorization**

The U.S. Congress extended the Moving Ahead for Progress in the 21st (MAP-21) Century Act until May 31, 2015. The U.S. Department of Transportation is preparing to send to Congress a “new and improved” Grow America Act for the next reauthorization.

### **National Freight Strategic Plan**

MAP-21 required the Secretary of the U.S. Department of Transportation to develop a National Freight Strategic Plan. The department will soon release a draft of the National Freight Strategic Plan Framework for public comment. It will be a multimodal plan, identifying highway, rail, waterway, port, pipeline, and air cargo infrastructure that is vital to the health of the national economy. The results of the plan will inform the Freight and Passenger Flows Scenario Study, discussed on page 39 of this report.

### **Peer Exchanges and Workshops**

Ken described several recent and upcoming events:

- Border Wait Time Peer Exchange
- Freight Peer Exchange
- Border Scenario Passenger and Freight Forecast Workshops

Also, the Transportation Planning Capacity Building Program provides peer exchanges. Information is available at: [planning.dot.gov](http://planning.dot.gov).



## **PEMBINA-EMERSON PORT OF ENTRY DUTY-FREE SHOP RELOCATION**

David Lettner of Manitoba Infrastructure and Transportation and Stephanie Hickman of the Federal Highway Administration presented on challenges associated with accommodating duty-free operations at a land port of entry between Pembina, North Dakota and Emerson, Manitoba. In 2009 regional border agency representatives participated in a long-range planning process simultaneous with the start of the Pembina-Emerson study. This exercise demonstrated the potential of planning to all parties involved.

### **CANADIAN PERSPECTIVE**

In the phase I conceptual planning study, one of the principles was to move non-essential functions (such as the duty-free shop) as far away from the port inspection facilities as possible. The current intersection conflicts with exit and entrances, causing traffic congestion and unsafe conditions. The current layout uses the Interstate 29 corridor to convey a mixed traffic stream, with no segregation of vehicles. The plan for the redesign is to add more segregation of lanes, including two dedicated commercial lanes on both sides. In the meantime, the agencies have implemented short-term geometric improvements. However, the solutions appear to be counterintuitive for some drivers, and it has taken a while for motorists to become accustomed to the new changes and channelization of lanes. Manitoba Infrastructure and Transportation has observed that the number of vehicles that get into the wrong lane has decreased over time. The short-term interim solution will help motorists better adjust to the full channelization that will occur later. The channelization will begin a mile from the border, and the duty-free facility will move back as well. Final decisions will depend on issues related to road geometry and design, such as exit-spacing requirements.

### **U.S. PERSPECTIVE**

A number of issues exist for the northbound side of the crossing, including the following:

- Commercial and passenger traffic not are not physically separated, which results in long queues and wait times.
- Current location of the duty-free facility forces commercial and passenger traffic to exit the queue and then re-enter.
- Lack of parking causes truck drivers to park on the side of the road and walk across traffic amplifying congestion and safety issues.
- An insufficient number of lanes leads to excessive wait times.
- Lack of convenient restroom facilities means that travelers often leave parked vehicles in the queue in search of restrooms or use the side of the roadway.

Proposed improvements include the following:

- Construct two new dedicated commercial lanes accessing proposed commercial primary inspection facilities, which will segregate commercial and passenger traffic.
- Separate pedestrian and bicycle traffic from commercial and passenger traffic by providing shared-use paths and designated crossing locations to minimize modal conflict.

## Challenges

The proposal to locate the duty-free facility in between commercial and passenger traffic conflicts with U.S. regulations that prohibit commercial activity in the interstate right-of-way. Regulations only allow non-highway use of the right-of-way if it is in the public interest. U.S. Customs and Border Protection needs to maintain surveillance over the duty-free facility, so it needs to be in the general vicinity. The proposed solution for the right-of-way conflict is that the North Dakota Department of Transportation will turn the property over to the General Services Administration and allow them to lease it to the duty-free facility (as they are now). The duty-free facility will move, but it will still be “pick-up only” (no onsite sales). It will include restroom facilities.

Another challenge is that the proposed multi-use path crosses traffic. In light of that, the project planners will need to consider whether signalization will be sufficient or whether grade separation may be advisable. A final challenge is that the potential project footprint is limited due to adjacent resources (a river and an historic cemetery). This will require assessments and approvals from additional agencies. The project will require at least an environmental assessment, which usually takes months to process, but it needs to be complete this year because the new inspection lanes are scheduled to open in 2016.

## DISCUSSION

Chris Dingman indicated that he would like to follow up with David, Stephanie, and Ben Ehreth to document the planning process and issues described in this presentation. Hugh Conroy suggested that it might be worthwhile for the TBWG to lead broader research on technologies and processes to better track duty-free purchases; this may allow for greater flexibility in planning duty-free operations.

## RAIL DISCUSSION GROUP

Barbara Klein-Barr of the Federal Railroad Administration and Lenore Duff of Transport Canada, introduced the discussion group and welcomed the panel of speakers.

### LIABILITY AND COMPENSATION REGIME FOR RAILWAYS

Lenore Duff of Transport Canada discussed the new Canadian proposed liability and compensation regime for railways.

#### Background

The Lac-Mégantic rail accident highlighted the need to strengthen Canada's liability and compensation regime for federally regulated railways. The Montreal, Maine, and Atlantic Railway had inadequate insurance to cover the scope of damages from the incident and subsequently went bankrupt. In 2013 Canada committed to "requiring shippers and railways to carry additional insurance so that they are held accountable."

In January 2014, the Minister of Transport launched a comprehensive review of the liability and compensation regime for federally regulated railways. The objective was to develop options to ensure sufficient funds would be available to compensate potential victims, pay for clean-up costs, and protect taxpayers. The review included research and analysis, including an international comparative review, and stakeholder consultations with shippers, railways (U.S.-based and Canada-based), their associations, Provinces, and communities.

In August 2014, the Minister of Transport announced that Canada would enhance insurance requirements for federally regulated railways and establish supplementary compensation for incidents involving dangerous goods. The announced approach aligns with recent updates to the liability regime of other modes and sectors in Canada, such as marine, pipelines, offshore drilling, and nuclear. Through these changes, Canada is adopting the "polluter pays principle" which holds polluters accountable for remedying environmental contamination and other damages for which they are responsible.

#### Safe and Accountable Rail Act

The *Safe and Accountable Rail Act* would amend the *Canada Transportation Act* to establish mandatory minimum insurance requirements and a supplemental shipper-financed fund. The bill must progress through both Houses of Canada's Parliament and receive Royal Assent prior to becoming law.

#### Insurance Requirements

Table 1 shows that the mandatory minimum insurance levels are based on the type and volume of dangerous goods carried in order to reflect risk and potential accident costs. The bill has provisions to mitigate the impact these changes will have on short-line railways.

**Table 1. Mandatory minimum insurance levels based on the type and volume of dangerous goods.**

<b>Insurance</b>	<b>Crude oil (tons per year)</b>	<b>Toxic inhalation hazard (tons per year)</b>	<b>All other types of dangerous goods (tons per year)</b>
\$25M	0	0	< 40,000
\$100M	> 0 - < 100,000	> 0 - < 4,000	≥ 40,000
\$250M	100,000—< 1.5 million	4,000—< 50,000	—
\$1B	≥ 1.5 million	≥ 50,000	—

### ***Supplemental Shipper-Financed Fund***

The proposed Act would also establish a shipper-financed fund to provide supplemental compensation for accidents involving crude oil above a railway's minimum mandatory insurance level. For accidents involving crude oil, railways will be liable, without the need to prove fault or negligence, up to their insurance level. The supplemental fund will compensate amounts in excess of this. Shippers would be required to pay a levy of \$1.65 Canadian dollars per ton of crude oil carried, indexed to inflation. An independent fund administrator would assess claims. Other goods could be added to the fund over time, through regulation.

### ***Expected Impacts on U.S.-based Interests and the Border***

U.S. Railways will need to comply with the new requirements. The levy will only be collected once, by the first federally regulated railway that transports into Canada after loading.

## **AMTRAK-INTERNATIONAL PASSENGER RAIL UPDATE**

Edgar Courtemanch of Amtrak presented an update on Amtrak's efforts to advance international passenger rail services. Figure 10 shows Amtrak cross-border trains. Prospective new international routes include the Vermonter extension to Montreal and the Michigan Corridor to Toronto.



Figure 10. Illustration. Past (discontinued), current, and potential future cross-border trains.

Ed indicated that the Cascades route has the highest ridership and the most promising recent trend in ridership, perhaps because it is the closest to the ultimate vision of customs preclearance. Figure 11 shows ridership trends for the three existing routes over a 12-year period.

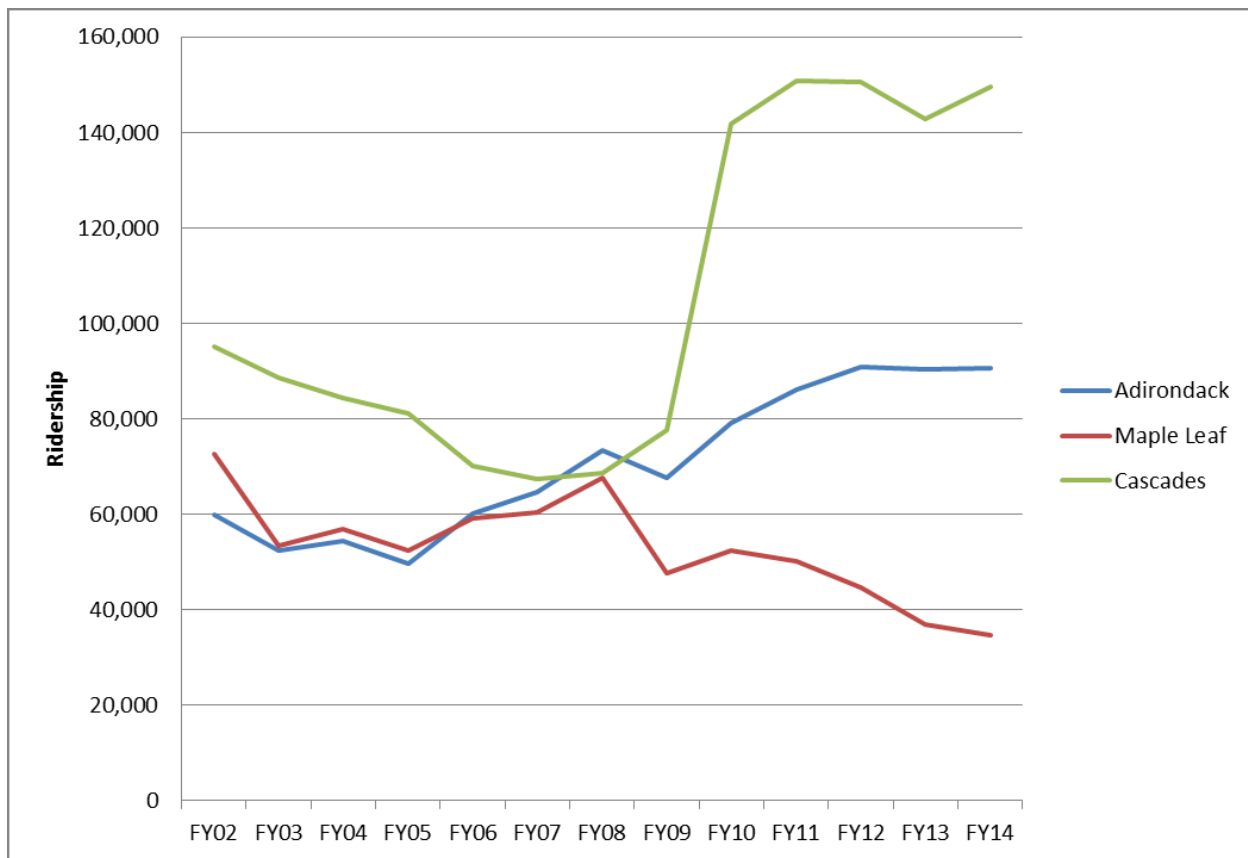


Figure 11. Chart. Amtrak Canadian Cross Border Ridership for Fiscal Years (October to September) 2002–2014.

The Maple Leaf route from Toronto, Ontario to New York, New York is the most disappointing route in terms of ridership. Amtrak hopes that customs preclearance may help to address service challenges, which may reverse the decline in ridership. The Cascade route involves a nonstop trip across the border until arrival in Canada at a gated compound. With the exception of U.S. customs screening, which is done on board southbound trains, all customs processes are done in Pacific Central Station. The lack of hassle related to customs likely contributes to the excellent ridership. The Maple Leaf route, in contrast, involves significantly more delay. The northbound train requires passengers to disembark at the border and wait at an outdoor, exposed facility for screening before crossing the border. The southbound train conducts primary customs inspection on board the train. The Adirondack route conducts both northbound and southbound primary inspections on board.

### Preclearance

According to Ed, preclearance has many benefits. For example, it provides better working areas for border agency staff, with related benefits such as:

- Provides more security.
- Provides more privacy for interviews of travelers.
- Makes it easier to match travelers with their luggage.
- Connects better with agency technology.

There are also a number of travel time benefits, such as the following:

- Reduces trip by at least an hour in some locations.
- Reduces perceived trip time even more.
- Improves reliability when even one passenger has border crossing issues.

Additional passenger benefits from preclearance vary by location but can include:

- Reduces inconvenience to those with luggage.
- Reduces possibility of injuries on stairs and exposed platforms.
- Avoids exposing passengers to inclement weather.

Potential preclearance locations include:

- Pacific Central Station (upgrade from pre-inspection)
- Montreal Central Station on Track 23 with high-level platform underground
- Niagara Falls, New York, International Intermodal Station with covered high-level platform, which is now under construction

## HIGH-SPEED RAIL IN CANADA

Iris Fawcett of the Ontario Ministry of Transportation delivered an update on Canadian high-speed rail. In the 1990s, Ontario and Quebec began an initial feasibility study on high-speed rail to connect Windsor, Ontario, with Quebec City, Quebec via Toronto, Montreal, and Ottawa. In 2009-2011 the Provinces revisited the feasibility study in light of new technologies and examples from abroad. The timing was still not right to advance a project, but now in 2015 they have decided to proceed. The Provinces have begun the environmental review process for a proposed travel corridor, and hope to have approval on the route within three years. There are significant issues to discuss. For example, high-speed rail is often grade-separated in order to provide more safety, which can become an environmental issue as it poses a more significant barrier on the landscape for humans and wildlife.

Iris indicated that Ontario and Quebec would like to ensure that the maintenance, design, routing, geometry, safety, and other standards for this high-speed rail line are compatible with what is (or will be) done in the rest of Canada and the U.S. They are also interested in discussing whether there is interest on the part of the U.S. to make it an international route. That conversation should start sooner rather than later because the outcome will impact the routing. In the fall the Ontario Ministry of Transportation will deliver a more detailed update on this project.

Iris noted that the ministries have modeled the projected ridership of the high-speed rail line and the concurrent modal shift. The highest percentage of modal shift will likely be from automobile traffic, but the greatest impact will be related to air traffic. Airline companies are enthusiastic about the project because the short-haul flights that the rail line would replace are not profitable.

## **AN ASSESSMENT OF FUTURE BILATERAL TRADE FLOWS AND THEIR IMPLICATIONS FOR U.S. BORDER INFRASTRUCTURE**

Dr. Laurie Trautman of the Border Policy Research Institute presented the findings of a study on projected future bilateral freight flows between the U.S. and Canada and their implications. The objectives of the study were to undertake the following:

- Summarize overall bilateral trade flows from 1990 to 2013.
- Examine commodity composition of trade flows.
- Develop scenarios for future trade flows at the commodity level.
- Link commodity trade flows to specific border ports.
- Develop scenarios for future capacity demanded at individual ports.

Observations from the study include the following:

- Since 2000 overall U.S. trade with Canada has declined in relative terms (as a percentage of total trade). Competition from third parties has driven this change.
- U.S. trade with Canada is highly concentrated in a handful of products.
- The overall volume of future bilateral trade hinges on the outlook for these products.
- The outlook for these products hinges on two factors: competition from developing countries and real economic growth in the U.S. and Canada.
- The deviation in trade volumes at individual ports will depend on two things: the commodities traded through those ports, and the changes in trade for those commodities.
- Overall, the authors expect a below average future growth in bilateral trade. Therefore, it is likely that capacity demand will grow more slowly in the future for most ports of entry on the northern border.
- In light of these circumstances, one management approach is to pursue means for using existing infrastructure more efficiently rather than building new infrastructure.
- This approach can provide a framework for considering infrastructure investments, but the authors do not advocate that investments should be based solely on this approach.

The full report is available at: [www.wvu.edu/bpri/files/2014\\_Globerman\\_Storer\\_Report\\_21.pdf](http://www.wvu.edu/bpri/files/2014_Globerman_Storer_Report_21.pdf).



## PERSPECTIVES ON TRANSPORTATION

Greg Nadeau, Acting Administrator for the Federal Highway Administration, presented some reflections and observations for the group. As a Maine native, and based on his past experiences with the Maine Department of Transportation and the Maine State legislature, Greg is very familiar with and passionate about freight and border issues. This is his fourth time attending a TBWG meeting. He expressed gratitude and excitement to be in attendance at the meeting and to celebrate the relationship between the U.S. and Canada and all of the contributions that the TBWG has made over the years.

Greg emphasized that the U.S. Department of Transportation and the Obama administration will continue to work hard on border issues through the rest of the term. The department will seek to achieve objectives within this term and also lay the foundation for future success. He reminded the group that the Federal Highway Administration Office of Freight is working on a national freight strategic plan, described on page 46 of this report, and he encouraged TBWG members to inform that effort.

Greg noted that the U.S. has made a remarkable recovery following the recent economic recession, and he emphasized that transportation plays an important role in transforming economic futures. The American Recovery and Reinvestment Act, together with the regular Federal aid program, infused billions of dollars and helped businesses grow with greater infrastructure. Trade with Canada and Mexico has been a big part of the recovery.

The financial situation today poses numerous challenges for governments on Federal, State, and local levels. U.S. agencies are forced to make hard choices about what investments to make, given that future funding streams are uncertain. This has resulted in over a billion dollars in delayed or deferred projects. Where insufficient infrastructure leads to extra time and expense to transport people and goods, this represents a hidden tax.

The proposed GROW AMERICA Act has unprecedented growth in funding and would result in a significant increase in investment capital for State and local partners. It includes \$370 billion for transportation, which represents a 29 percent increase over current spending levels. The U.S. Department of Transportation is preparing to send a revised version of the act to Congress so that they may review it. The current extension to the transportation authorization bill is set to expire in May.

Greg called for a systems approach to deal with future challenges and changes, such as population growth. He also called for enhanced efficiency at border crossings. If the current system is not sufficient to deal with present demand it will not be sufficient for the future. The Federal Highway Administration is working to bring greater innovation to transformation. For example, [Every Day Counts](#) accelerates the deployment of technology- or process-based innovations.

The BTB Action Plan has signaled that agencies in the U.S. and Canada need to work together closely and the initiative puts officials at all levels on the front lines to work together. Major projects are advancing that show an incredible amount of collaboration.

Greg listed some key projects, such as the Gateway Connections project at the East Bridge in Buffalo, New York, where a new ramp will connect directly to the interstate, taking traffic out of the neighborhood. This will improve capacity and reduce impacts on the neighborhood; it will be complete by June 2017.

A recent trilateral peer exchange on border wait times (see page 7) brought together partners to advance technology that improves efficiencies at the border. The Federal Highway Administration has identified funding to support continued deployment of border wait time technologies and strategies. An upcoming peer exchange in May will focus on freight. A decade ago, transportation agencies were not considering freight, but now it is something that everyone realizes is critical. Thirty six U.S. States have freight plans, demonstrating much more commitment to this issue.

As Ken Petty described in his presentation (see page 27) *Beyond Traffic 2045* analyzes changes, impacts, and options for the future transportation system. The Secretary is keenly focused on what we can do now to prepare for the future.

## SCENARIO PLANNING OF FUTURE FREIGHT AND PASSENGER TRAFFIC FLOWS ACROSS THE U.S.–MEXICO AND U.S.–CANADA BORDERS

Travis Black of the Federal Highway Administration presented about a scenario planning study regarding multimodal North American freight and passenger flows. This study supports several executive priorities, including North American Leaders Summit commitments to improve cooperation on transportation and freight planning, the 21st Century Border Initiative, the BTB Action Plan, and the U.S.–Mexico High Level Economic Dialogue, which has focused on identifying key logistics corridors. This study supports all of these priorities and provides tools for use in border master planning. The study will investigate a broad North American perspective as well as regional perspectives, and the final report will be ready in spring 2016.

Primary objectives of the study include the following:

- Develop detailed micro- and macro-level multimodal freight and passenger flow projections between the U.S. and Canada, the U.S. and Mexico, and Mexico and Canada.
- Develop, to the extent possible, a common understanding between and within U.S., Canadian, and Mexican agencies regarding future scenarios. Develop common projections for future statistics on population, business, and traffic for use in planning efforts.
- Display the projections in a visualization tool compatible with the Office of Planning, Environment, and Realty GIS Planning Tool (HEPGIS).
- Develop a framework to look at North American multimodal transportation flows, building on the existing and ongoing research in Canada, Mexico, and the U.S.
- Identify and document multimodal corridor and gateway needs, trends, and opportunities for North American competitiveness.

This project will include workshops in each of the following locations: Washington, D.C., Mexico City, and Ottawa. These workshops will identify key driving forces of freight and passenger traffic in North America over the next 30 years. During the workshops public and private sector participants will provide input on forecasts and identify infrastructure investment priorities to meet demands identified in future scenarios. The first series of workshops took place February through March 2015, and the second series will take place May through August 2015.

The purpose of the first series of workshops was to obtain feedback from public and private sector stakeholders on the driving forces affecting future freight and passenger flows at the North American, national, and regional scale. The workshops included breakout sessions where participants each worked on one of four scenarios outlined in the National Cooperative Highway Research Program Report 750, [\*Strategic Issues Facing Transportation, Volume 1: Scenario Planning for Freight Transportation Infrastructure Investment\*](#). The purpose of the second series of workshops is to examine the results and driving forces discovered in the first series of workshops. The focus will be on the distribution of flows at the regional border master plan scale and individual port of entry scale along both the U.S.–Mexico and the U.S.–Canada borders.

The project team is using four overarching alternative scenarios developed by the Massachusetts Institute of Technology Center for Transportation and Logistics as part of the aforementioned National Cooperative Highway Research Program study. The four alternative scenarios include the following:

- **Global Marketplace**—A highly competitive and volatile world where open, vigorous trade between virtually all nations has led to market-based approaches to most contemporary challenges.
- **One World Order**—A highly regulated and managed world. Facing global scarcity of key resources, nations establish international rules to ensure their fair and sustainable use. Global trade thrives, but the very visible hand of regulation shapes its course.
- **Millions of Markets**—A world where advanced technological breakthroughs have enabled the U.S. (and other countries) to become highly self-reliant in terms of energy, agriculture, manufacturing, and other needs. There is increased migration towards smaller urban areas supported by nearby regional innovation hubs that can manufacture highly customized goods.
- **Naftástico!**—A world where trade has moved away from a single global market toward a number of emerging regional trading blocs.

The study will run cross scenario comparisons to look for insights and implications. The implications will either be robust or contingent. Robust implications are those strategies or approaches that have similar outcomes across all of the scenarios. Contingent implications are those strategies or approaches that make sense in some scenarios—but not in all. Robust implications will fall into one of three categories:

- **No Brainers** are strategies that would make sense in all scenarios.
- **No Regrets** are strategies that are beneficial in some scenarios, and not detrimental in any.
- **No Gainers** are strategies that would not be desirable in any scenario.

Contingent implications are more ambiguous, and the study will seek to understand why they are contingent.

The Federal Highway Administration will develop a visualization tool so that users can see results of the freight and passenger flows graphically under each scenario. The web-based, geospatial interface will make the scenario projections available to a broad audience. The visualization system will enable users to display information about specific features, print, save, download, and email electronic copies of any map or table they create. The tool will include data on modal traffic flows, population demographics, and industrial sectors to put the scenario traffic projections in context. Figure 12 shows the Federal Highway Administration HEPGIS interface, which will house the visualization tool.



Figure 12. Screenshot. The Federal Highway Administration HEPGIS interface, which will house the visualization tool for this scenario planning effort.

## **U.S.–MEXICO BORDER MASTER PLANNING OVERVIEW**

Tricia Harr of the Federal Highway Administration presented an overview of past and present efforts on regional border master plans on the U.S.–Mexico border.

The Federal Highway Administration role in border master planning focuses on three key principles:

- Improve decisionmaking related to border coordination.
- Ensure people and goods can move efficiently across the borders.
- Support national security.

The U.S.–Mexico regional border planning process stems from the U.S.–Mexico Joint Working Committee biennial work plans, where it continues to be a reoccurring item. Border master planning informs long-range planning for the border and lays the foundation for future discussions.

### **COMPENDIUM**

In 2007, the U.S.–Mexico Joint Working Committee decided it would be beneficial to have a compendium of existing infrastructure and master plans along the U.S.–Mexico Border to accomplish the following objectives:

- Increase the understanding of port of entry and transportation planning on both sides of the border.
- Create a plan for prioritizing and advancing port of entry and related transportation projects
- Establish criteria and a process for prioritizing projects related to existing and new ports of entry as well as transportation facilities leading to the border crossings.

The compendium evolves over time to incorporate information from regional plans as they are developed.

### **PROCESS FOR PLANS**

Regional border master plans begin with stakeholder outreach, followed by research and analysis, and each plan generally includes the following steps:

- Establish stakeholder participation through meetings and outreach.
- Document the current state of the practice for port of entry and transportation planning on both sides of the border.
- Assess existing capacity and demand for freight and passenger vehicles/goods.
- Estimate the growth of future travel and demand through origin and destination studies, scenario planning, and other means.
- Define and approve evaluation criteria for prioritization of needs and projects.
- Analyze forecast data and identify mid- and long-term needs.
- Apply criteria and rank projects.
- Prepare draft and final reports.

## “AREA OF INFLUENCE” AND “FOCUS AREA”

Figure 13 shows an example of an “Area of Influence” and a “Focus Area.” Each border master plan has an Area of Influence, which is an area where the plan models traffic. For this example, the Area of Influence is the geographic area 60 miles (100 kilometers) north and south of the California and Baja-California international border. The Focus Area is the area within which projects must be located in order for the border master plan to evaluate and rank them. For this example, the Focus Area is the geographic area 10 miles north and south of the California-Baja California international border. This zone captures the majority of transportation networks directly connected to the ports of entry in California and Baja California.

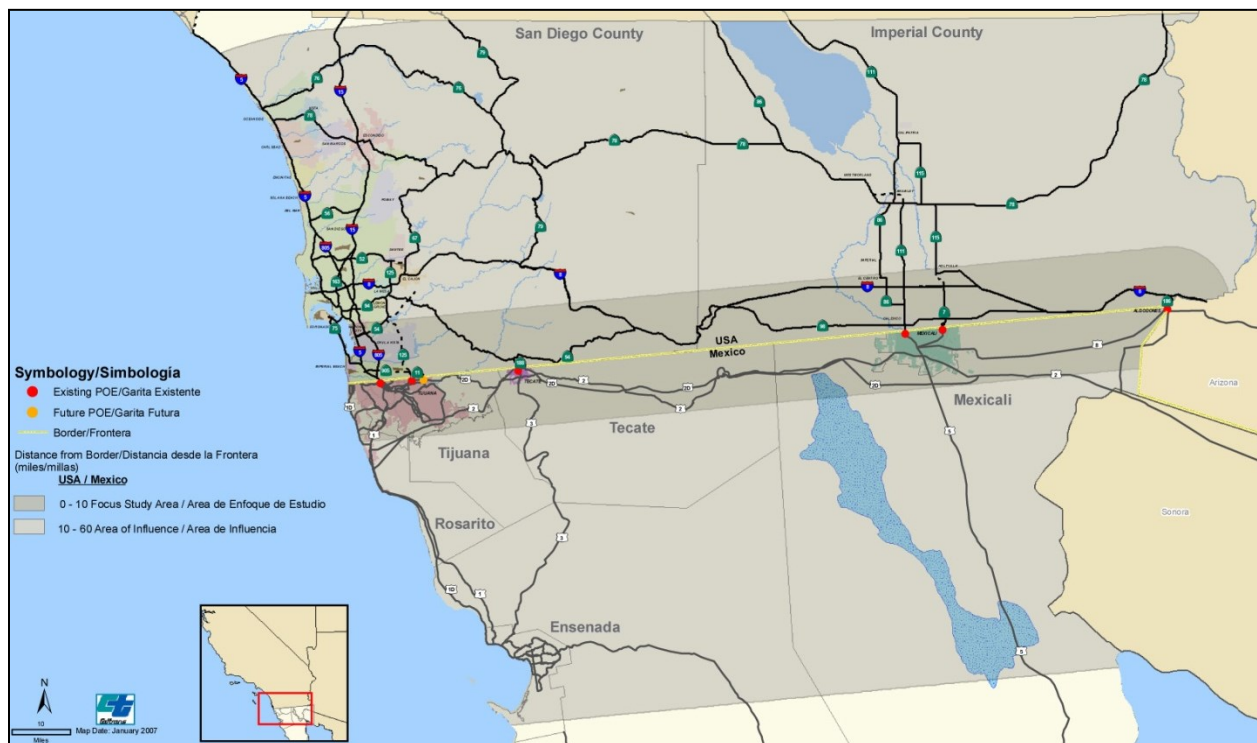


Figure 13. Illustration. An example of an “Area of Influence” and “Focus Area” for a border master plan at the California and Baja-California international border.

## BENEFITS

Multiple benefits have resulted from the border master planning process on the U.S.–Mexico border. The regional planning process accomplishes the following:

- Facilitates local stakeholder input.
- Produces outcomes that can be used in local planning processes and to compete for funding.
- Follows a systematic approach to implementing border projects.
- Allows the regions to initiate infrastructure decisions.
- Provides a resource that multiple agencies can use to inform actions.

Regional border master plans for the Canada–U.S. border may result in similar benefits. The completed regional border master plans for the U.S.–Mexico border are available at:  
[www.borderplanning.fhwa.dot.gov/masterplans.asp](http://www.borderplanning.fhwa.dot.gov/masterplans.asp).



## PROPOSED CASCADE GATEWAY BORDER MASTER PLAN

Todd Carlson of the Washington State Department of Transportation presented on a proposal to initiate a regional border master planning process for the Washington State and British Columbia border. The agencies have not yet scoped this project.

Possible outcomes may include the following:

- Make transportation infrastructure an early and prominent consideration for border inspection changes to structures and operations.
- Facilitate cross-jurisdictional funding for mutually beneficial improvements.
- Link improvements to performance targets.
- Improve security and mobility.
- Improve summarization and coordination of planning and data collection.
- Synchronize infrastructure improvements.
- Increase policy coordination.
- Improve the ability of port of entry directors to provide optimal staffing at the border.

Todd solicited general input from the group. He also asked for input on some specific questions:

- What stakeholders should participate?
- Potential partnerships for funding improvements?
- For forecasting demand, what is the right measure: a timeframe or a demand threshold?
- How modally diverse should this plan be?
- What unique issues do you face that the plan should consider?

Contact Todd at [CarlsoT@wsdot.wa.gov](mailto:CarlsoT@wsdot.wa.gov) with questions or additional input.

## **FREIGHT PANEL DISCUSSION**

### **MAP-21 FREIGHT PROVISIONS—STATUS REVIEW**

Tiffany Julien of the Federal Highway Administration presented an update on the status of various MAP-21 freight provisions. For more information, use the following avenues:

- Phone: 202-366-0408
- E-mail: [freightfeedback@dot.gov](mailto:freightfeedback@dot.gov)
- Website: [www.ops.fhwa.dot.gov/freight/](http://www.ops.fhwa.dot.gov/freight/)

### **Conditions and Performance Report**

Section 1115 of MAP-21 required the U.S. Department of Transportation to prepare a report on the conditions and performance of the national freight network. This first report presents measures and data sources, where possible, and identifies data gaps that future reports will hope to address. The U.S. Department of Transportation plans to release the report in early spring.

### **National Freight Strategic Plan**

Section 1115 of MAP-21 required the U.S. Department of Transportation to develop a National Freight Strategic Plan in consultation with State departments of transportation and other stakeholders.

### **Primary Freight Network**

The U.S. Department of Transportation developed a comprehensive map of 41,518 interconnected, centerline miles, including 37,436 centerline miles of Interstate and 4,082 centerline miles of non-Interstate roads based on eight criteria. Since the statute limits the network to 27,000 centerline miles, the U.S. Department of Transportation then identified those segments with the highest average annual daily truck traffic. A number of stakeholders submitted comments on the draft network, primarily focusing on the methodology; specific route deletions, additions, or modifications; and suggestions for an urban area route designation process.

### **State Freight Plans/Advisory Committees**

MAP-21 states that the Secretary shall encourage each State to develop a freight plan. This could either be part of the long-range plan or a separate planning effort. Four States have plans that meet or would likely meet MAP-21 requirements, and 38 other States are in the process of developing or updating plans.

### **Projects of National and Regional Significance**

MAP-21 Section 1120 required the U.S. Department of Transportation to develop a report to Congress on Projects of National and Regional Significance. The department conducted two surveys. The report will summarize the responses and classify the projects.

### **Freight Performance Measures and Data**

MAP-21 requires the development of tools and data to aid in performance measurement. In response, the Federal Highway Administration Office of Freight is pursuing a number of initiatives:

- The office is producing a primer of best practices for States and regional agencies on freight performance measures. This will be complete in 2016.
- The office is exploring new data sets through the use of big data and radio frequency identification (RFID).
- The office has obtained the National Performance Management Research Data Set ([www.ops.fhwa.dot.gov/freight/freight\\_analysis/perform\\_meas/vpds/npmrdsfaqs.htm#q2](http://www.ops.fhwa.dot.gov/freight/freight_analysis/perform_meas/vpds/npmrdsfaqs.htm#q2)), which is based on probe data. Other agencies are free to use the data.
- The office is developing the requirements for freight performance measures as specified in MAP-21 section 1203. These measures will pertain to the Interstate Highway System only. Proposed measures will be available for public comment in early 2015.

For more information visit: [www.ops.fhwa.dot.gov/freight/freight\\_analysis/perform\\_meas/index.htm](http://www.ops.fhwa.dot.gov/freight/freight_analysis/perform_meas/index.htm).

### **Truck Parking**

MAP-21 section 1401 requires that the U.S. Department of Transportation conduct a commercial vehicle parking study. The agency established a Stakeholder Technical Oversight Group and completed a survey collecting information on State parking facilities, an assessment of truck volumes, and metrics to measure the adequacy of truck parking facilities in each State. The summary report will be available soon.

### **Comprehensive Truck Size and Weight Limits Study**

MAP-21 section 32801 requires that the U.S. Department of Transportation conduct a comprehensive truck size and weight limits study. The study seeks to determine the magnitude of potential impacts if changes are implemented, and:

- Assesses differences between trucks operating at or within Federal truck size and weight limits and trucks legally operating in excess of Federal limits.
- Estimates changes in freight movements that may occur through the introduction of alternative truck configurations.
- Estimates the potential impacts of alternative configurations.
- Identifies all Federal rules and regulations impacted by changes in size and weight limits.

### **Compilation of Truck Size and Weight Laws**

MAP-21 section 32802 requires the U.S. Department of Transportation to compile truck size and weight limit laws in order to:

- Identify National Highway System routes that allow trucks to operate over Federal size and weight limits.
- Identify State laws that allow trucks to exceed Federal size and weight limits.

A report to Congress will soon be complete.

## TEXAS FREIGHT PLAN PRESENTATION

Caroline Mays of the Texas Department of Transportation reported on the Texas freight plan and other related items. She emphasized that maintaining and growing the trade relationship with Mexico and Canada relies on the capacity and efficiency of the Texas transportation network, especially near border crossings and major corridors such as Interstate 35, Interstate 69, and the rail network. Figure 14 illustrates key freight transportation corridors between Canada and Mexico through Texas. Caroline also noted that over 74 percent of U.S.–Mexico trade comes through Texas. The current trend is that parts move back and forth across the U.S.–Mexico border throughout the assembly process, blurring the boundary between imports and exports.

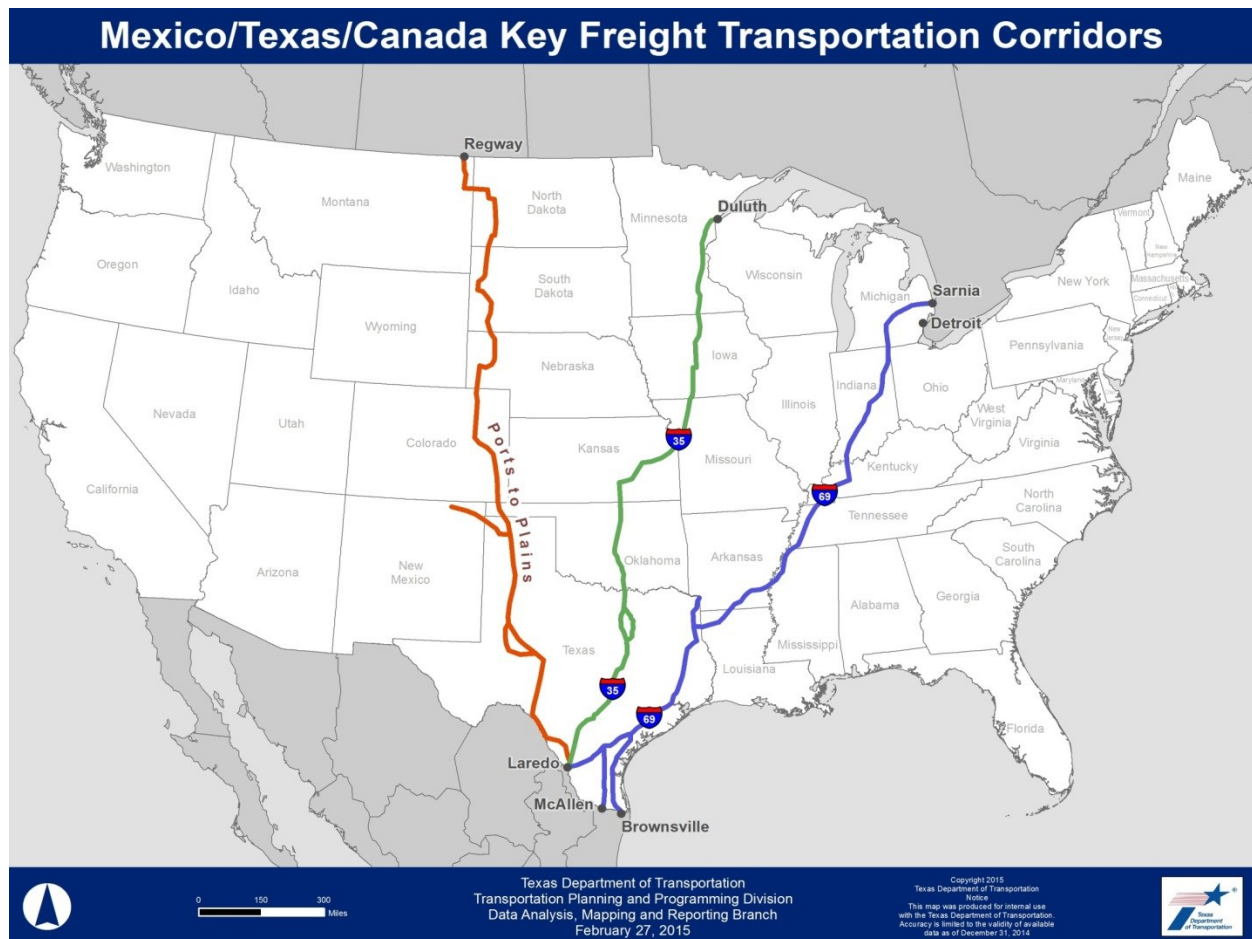


Figure 14. Illustration. Key freight transportation corridors between Canada and Mexico through Texas.

### Texas Freight Advisory Committee

Caroline shared the following updates on the Texas Freight Advisory Committee:

- Created in January 2013 by the Texas Transportation Commission.
- Evolved out of the Panama Canal Stakeholder Working Group.
- Membership includes private and public sector freight stakeholders.
- Committee meets quarterly.

## Texas Freight Mobility Plan

Caroline noted that the Texas freight planning program is two years old. The objectives of the Texas Freight Mobility Plan are to:

- Develop the first comprehensive and multimodal statewide freight mobility plan.
- Outline the State's short and long-term plan for freight investments and planning activities.
- Identify freight transportation facilities critical to the State's economic growth.
- Enhance economic growth and economic competitiveness of the State and the U.S.
- Guide investments and policies.

Through the planning process, stakeholders identified the following challenges on the Texas portion of the U.S.–Mexico border:

- Trade volumes between the U.S. and Mexico through Texas are growing.
- Congestion at the border impacts the efficiency of freight movement.
- Border crossing staffing issues impact customs processing time and wait times.
- Stakeholders wish to extend the hours of operation at ports of entry and/or encourage industry to use off-peak hours.
- There is a need to apply technology at ports of entry to improve mobility at the crossings.
- There is a need to modernize the screening of trucks at the border.

The freight plan includes recommendations related to policies, programs, and projects. A few of the draft recommendations are as follows:

- Invest in and facilitate international border coordination strategies to improve freight mobility and efficiency.
- Invest in a comprehensive integration of security and cross-border efficiency to improve cross-border trade and the movement of people and goods in order to facilitate Texas' economic competitiveness.
  - Maintain security while increasing trade throughput.
  - Implement advanced intelligent transportation systems for border trade commercial shipments.
  - Implement a commercial motor vehicle safety data exchange.
  - Increase the use of electronic credentialing.
  - Establish virtual weigh stations at appropriate locations.
- Work with Federal, State, and local agencies and the private sector to develop a program to analyze current efficiencies at international freight border crossings.

Texas is also integrating information from the regional border master plans into the freight plan, and investigating options for developing border performance measures. For more information on the Texas freight mobility plan and freight advisory committee visit [movetexasfreight.com](http://movetexasfreight.com) or contact Caroline at: [caroline.mays@txdot.gov](mailto:caroline.mays@txdot.gov).

## NEW YORK STATE FREIGHT PLAN

Maria Chau of the Federal Highway Administration reported on the New York State Freight Plan and other related items. New York does not currently have a statewide freight plan, but the State is beginning a process to develop one and expects to complete the plan in fall 2016. The objectives of the plan include the following:

- Identify gaps and opportunities to improve the multimodal freight network and competitive position relative to goods movement and global trade.
- Provide a strategic framework for advancing high-priority freight strategies and projects in partnership with international, Federal, regional, private sector, and other stakeholders, such as the State's Regional Economic Development Councils.
- Guide freight-related transportation investments and strategies.

The plan will draw upon existing studies, such as the following:

- New York State Department of Transportation Rail Plan.
- New York Metropolitan Transportation Council Regional Freight Plan Update 2015–2040.
- Port Authority of New York/New Jersey Goods Movement Plan.
- Genesee Transportation Council Transportation Strategies for Freight and Goods Movement in the Genesee-Finger Lakes Region.
- Niagara Frontier Urban Area Freight Transportation Study.
- New York State Regional Economic Development Councils' Reports.
- Binghamton Regional Freight Study.

Figure 15 shows the status of various freight planning initiatives in New York. For additional information, contact Maria Chau at [Maria.Chau@dot.gov](mailto:Maria.Chau@dot.gov).





Figure 15. Illustration. Status of various freight plans in New York.

## SUMMARY COMMENTS

David Franklin of the Federal Highway Administration and Melissa Dawn Newhook of Transport Canada summarized the proceedings and offered some concluding remarks. They noted the following action items and next steps for each committee:

- **Border Infrastructure:** The team developing the *Border Infrastructure Investment Plan* (BIIP) will reach out to TBWG members for input on the BIIP 3.0 and developing the approach to performance measures.
- **Technology:** Research and implementation on border wait time systems and other intelligent transportation systems will continue. The Federal Highway Administration announced additional funding for border wait time projects and will ask TBWG members to participate in pilot projects.
- **Trade and Traffic Data:** The Ontario Ministry of Transportation and the Federal Highway Administration will host a series of workshops for stakeholders to discuss the border surveys that Ontario has already completed and potential future analyses. Christopher Dingman welcomes input from TBWG members to improve his NEXUS analysis.
- **Policy:** The Steering Committee will discuss ways to improve the structure of future plenary meetings based on suggestions offered by participants. The committee will also update the TBWG Action Plan.



## APPENDIX

### AGENDA

DAY ONE – Tuesday, March 3, 2015

<b>8:00</b>	<b>Self-Registration</b>	
<b>8:00 – 8:15</b>	<b>TBWG Call to Order &amp; Welcoming Remarks</b> <u>TBWG Co-Chairs:</u> <i>Tom Oommen, Transport Canada &amp; Ken Petty, Federal Highway Administration</i> <b>Housekeeping Announcements &amp; Participant Introductions</b>	
<b>8:15 – 8:20</b>	<b>Local Welcome</b> <i>Cheryl Martin, Assistant Division Administrator, Maine Division, Federal Highway Administration</i>	
<b>8:20 – 9:30</b>	<b>Border Infrastructure Session</b> <u>Committee Co-Chairs:</u> <i>Christopher Dingman, Federal Highway Administration &amp; Melissa Dawn Newhook, Transport Canada</i>	
	<b>Baudette – Rainy River Border Project Updates</b> <b>International Bridge</b> <i>Joe McKinnon, Minnesota Department of Transportation</i> <b>CBSA Project Update</b> <i>Sylvain Cyr, Canada Border Services Agency</i> <b>Public Bridge Operators Association</b> <i>Lew Holloway, Niagara Falls Bridge Commission</i>	<b>Border Infrastructure Investment Plan<sup>2</sup> Update</b> <i>Melissa Dawn Newhook, Transport Canada, Chris Dingman, Federal Highway Administration, Sylvain Cyr, Canada Border Services Agency &amp; Daniel Hayes, Customs and Border Protection</i>
<b>9:30 – 9:45</b>	<b>Networking Break</b>	
<b>9:45 – 10:15</b>	<b>Emergency Bridge Operations: Snow Disaster Impact &amp; Improved Traffic Information Systems to the Rescue</b> <i>Ron Rienas, Buffalo and Fort Erie Public Bridge Authority</i>	
<b>10:15 – 11:15</b>	<b>Technology Session</b> <u>Committee Co-Chairs:</u> <i>Juñe Irvine, Transport Canada &amp; Tiffany Juñen, Federal Highway Administration</i>	
	<b>Overview of Canada-U.S.-Mexico Border Wait Time Peer Exchange</b> <i>Travis Black, Federal Highway Administration &amp; Juñe Irvine, Transport Canada</i> <b>Estimating Truck Border Wait Times Using Geospatial Data</b> <i>Andrew Carter, Transport Canada (Remote Presentation)</i>	<b>Incorporating Booth Status Data into a Regional Archive</b> <i>Melissa Fanucci, Senior Planner, Whatcom Council of Governments</i>
<b>11:15 – 12:00</b>	<b>Trade and Traffic Data Session</b> <u>Committee Co-Chairs:</u> <i>David Franklén, Federal Highway Administration &amp; Rob Tardif, Ontario Ministry of Transportation</i>	
	<b>Border Survey Workshops</b> <i>Rob Tardif, Ontario Ministry of Transportation</i>	<b>NEXUS &amp; Border Wait Times</b> <i>Christopher Dingman, Federal Highway Administration</i>
<b>12:00 – 1:15</b>	<b>Lunch (Individual Arrangements)</b>	
<b>1:15 – 2:15</b>	<b>Border Security in the Fourth Quarter of the Obama Administration: Rally Before the Buzzer, or Playing Out the Clock?</b> <i>Dr. Christopher Sands, Hudson Institute</i>	
<b>2:15 – 3:00</b>	<b>Economic Implications of the Canada-U.S. Border Bridges: Applying a Binational Local Economic Model for International Freight Movements</b> <i>Dr. JiYoung Park, University at Buffalo</i>	
<b>3:00 – 3:15</b>	<b>Networking Break</b>	
<b>3:15 – 4:15</b>	<b>Policy Session</b> <u>Committee Co-Chairs:</u> <i>Hugh Conroy, Whatcom Council of Governments &amp; Tom Oommen, Transport Canada</i>	
	<b>Great Plains States/Prairie Provinces Steering Committee Representation</b> <i>David Lettner, Manitoba Infrastructure and Transportation</i> <b>Evaluating the Feasibility of an RFID Pilot – Group Discussion</b> <i>Hugh Conroy, Whatcom Council of Governments</i>	
<b>4:15 – 4:30</b>	<b>Summary Comments and Adjournment Day One</b> <i>David Franklén, Federal Highway Administration &amp; Melissa Dawn Newhook, Transport Canada</i>	

DAY TWO – Wednesday, March 4, 2015

<b>8:00</b>	<b>Self – Registration</b>
<b>8:00 – 8:10</b>	<p><b>Call to Order</b>  <b>TBWG Co-Chairs:</b>  <i>Ken Petty, Federal Highway Administration &amp; Tom Oommen, Transport Canada</i>  <b>Secondary Introductions</b></p>
<b>8:10 – 9:30</b>	<p><b>Ottawa &amp; Washington Updates</b>  <i>Tom Oommen, Transport Canada</i>  <i>Sylvain Cyr, Canada Border Services Agency</i>  <i>Lisa Dye, Customs and Border Protection &amp;</i>  <i>Ken Petty, Federal Highway Administration</i></p>
<b>9:30 – 10:00</b>	<p><b>Pembina-Emerson Port of Entry</b>  <b>Duty Free Shop Relocation</b>  <i>Stephanie Hickman, Federal Highway Administration &amp; David Lettner, Manitoba Infrastructure and Transportation</i></p>
<b>10:00 – 10:15</b>	<b>Networking Break</b>
<b>10:15 – 11:15</b>	<p><b>Rail Discussion Group</b>  <b>Group Co-Chairs</b>  <i>Barbara Klein-Barr, Federal Railroad Administration &amp; Lenore Duff, Transport Canada</i>  <b>Liability and Compensation Regime for Railways</b>  <i>Lenore Duff, Transport Canada</i>  <b>Amtrak – International Passenger Rail Update</b>  <i>Edgar Courtemanch, Amtrak</i>  <b>High Speed Rail in Canada</b>  <i>Iris Fawcett, Ontario Ministry of Transportation</i></p>
<b>11:15 – 11:45</b>	<p><b>An Assessment of Future Bilateral Trade Flows and their Implications for U.S. Border Infrastructure</b>  <i>Dr. Laurie Trautman, Border Policy Research Institute</i></p>
<b>11:45 – 1:00</b>	<b>Lunch (Individual Arrangements)</b>
<b>1:00 – 1:30</b>	<p><b>Perspectives on Transportation</b>  <i>Acting Administrator Gregory G. Nadeau, Federal Highway Administration</i></p>
<b>1:30 – 2:00</b>	<p><b>Scenario Planning of Future Freight and Passenger Traffic Flows across the US/Mexico and US/Canada Borders</b>  <i>Travis Black, Federal Highway Administration</i></p>
<b>2:00 – 2:15</b>	<p><b>U.S. – Mexico Border Master Planning Overview</b>  <i>Tricia Harr, Federal Highway Administration</i></p>
<b>2:15 – 2:40</b>	<p><b>Washington State – British Columbia Border Master Planning Startup</b>  <i>Todd Carlson, Washington State Department of Transportation</i></p>
<b>2:40 – 2:55</b>	<b>Networking Break</b>
<b>2:55– 4:00</b>	<p><b>Freight Panel Discussion</b>  <b>MAP-21 Freight Provisions – Status Review</b>  <i>Tiffany Julien, Federal Highway Administration</i>  <b>Texas Freight Plan Presentation</b>  <i>Caroline Mays, Texas Department of Transportation</i>  <b>New York State Freight Plan Presentation</b>  <i>Mania Chau New York State Federal Highway Administration</i></p>
<b>4:00 – 4:15</b>	<p><b>Summary Comments and Final Adjournment</b>  <i>Melissa Dawn Newhook, Transport Canada &amp; David Franklin, Federal Highway Administration</i></p>