

# From the MFAC Chair

# Advancing Freight, Advancing Minnesota

MFAC shares its rich expertise to help move freight—and the state's economy—forward

In December, the Governor's Advisory Council on Connected and Automated Vehicles (CAVs) made recommendations to help Minnesota benefit from these technologies. MFAC members offered their perspectives to the council on what those technologies mean for freight in the state.

During the coming year, MFAC will further explore the implications of CAVs for freight and contribute where possible to strategic action planning efforts for the eventual deployment of CAV technologies for improved freight safety and mobility.

That's just one example of the ways that MFAC makes a difference in ensuring a robust, diverse, and resilient freight network for the state. In turn, that network plays a vital role in ensuring a robust, diverse, and resilient state economy.

#### **Sharing expertise**

Among other priorities for the coming year, MFAC intends to share the extensive expertise of its members with our newly elected leaders and policymakers as they address the many, complex, and persistent freight-related challenges at hand. Chief among those challenges are the muchneeded critical investments in our transportation infrastructure to support freight, for which MFAC members remain passionate advocates.

MFAC works on a powerful principle: Bring together experts from all aspects of freight—whether trucking, air, rail, ports and rivers, pipelines, or logistics—and let them explore the issues that will keep freight in the state moving and improving.

As part of its key advisory role, MFAC members help coordinate the implementation of the Statewide Freight System and Investment Plan, which targets actions to strengthen freight in the state. Keeping the plan front and center, MFAC focuses its meeting agendas on specific plan items. District (regional) freight plans in development will help address more local transportation issues, each based on the unique aspects of the industry clusters supported in each region of the state.

#### **Exploring critical freight issues**

The depth of our members' knowledge also allows MFAC to respond to almost any question about freight and to offer thoughtful input on ways to extend freight's reach and efficiency.

In fact, with so many subject matter experts, we learn from each other. This year, we added open time at each meeting for members to ask questions, share information, or raise a subject for discussion.

This annual report features the following examples of MFAC's ability to address key aspects of Minnesota's freight system by tapping its members and collaborating with others:

- MFAC published a white paper on the state's intermodal service that details its importance to the Minnesota economy, its current state, and its challenges and potential.
- A panel of MFAC members took a closer look at the possible impact of recent trade policy shifts on the freight industry.
- MFAC engaged key air and railroad freight providers on their plans and investments.
- MFAC explored CAVs, delving into potential implications for freight, particularly the trucking industry.

#### Fostering broad support and collaboration

These stories help demonstrate the depth and breadth of MFAC expertise. Of course, none of this would be possible without the support of so many.

We want to thank Commissioner Charles Zelle, who has consistently supported MFAC and the advancement of freight; MnDOT's freight planning staff for their hard work in setting a future course with freight as a priority; and the Center for Transportation Studies (CTS) staff for their efficient coordination of MFAC meetings and projects.

My thanks to all MFAC members and our past chair Bill Goins. Collectively, MFAC clearly is becoming a resource of value for leaders and decision makers in the state of Minnesota and the region. We are building a stronger freight community as a result of your contributions, one poised to keep Minnesota locally, regionally, nationally, and globally competitive.

Ron Dvorak, Chair (2018–2019), Minnesota Freight Advisory
 Committee

#### **About MFAC**

Established in 1998 as the first statelevel freight advisory committee in the country, the Minnesota



Freight Advisory Committee (MFAC) serves as a model for other states that now are forming similar committees.

A partnership between government and business, MFAC meets quarterly to exchange ideas and recommend policy and actions with the mission of developing and promoting safe, productive, and sustainable freight transportation in Minnesota.

More specifically, MFAC focuses on increasing awareness of freight transportation issues, facilitating a quick response to freight questions and issues for policymakers and others, and providing a focal point for freight transportation expertise in Minnesota.

MFAC plays a critical role in the continued development and implementation of the Minnesota Statewide Freight System and Investment Plan and its Freight Action Agenda. The Minnesota Department of Transportation (MnDOT) produced the plan in partnership with public and private sector freight stakeholders throughout the state.

The Minnesota Statewide Freight System and Investment Plan describes Minnesota's freight transportation system and its role in the state's economy, current and emerging industry trends, the performance of the freight transportation system, and current and future issues and needs. The Freight Action Agenda, which identifies actions needed to advance freight performance in Minnesota, is a guide for implementation that will be regularly updated, and it serves as a tool for monitoring progress and fostering continued collaboration.

MFAC's membership roster (see page 12) includes broad representation from the public and private sectors. The committee also serves as a conduit for other freight industry and business contacts.



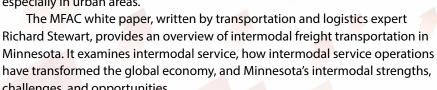
# Intermodal Freight Transportation in Minnesota

Improving service will require collaboration and communication among all stakeholders

Minnesota is the third largest agricultural exporting state in the country, and there is an ever-increasing domestic and global movement of agricultural products in containers. In addition, Minnesota has vibrant clusters of production manufacturing, forest products, printing and publishing, retail, processed foods, and heavy machinery—and many of these products also have the potential to move as containerized freight.

> According to an MFAC white paper published in 2018, intermodal service can be an engine of economic development, creating or growing logistics clusters, reducing costs, and encouraging businesses to expand or relocate. Efficient intermodal service reduces the environmental impact of freight movement and reduces truck traffic on highways—creating multiple benefits for the state, especially in urban areas.

challenges, and opportunities.



# **Strengths**

Minnesota shippers, carriers, and government agencies have a history of success in collaborative efforts to improve transportation systems. Current domestic and international intermodal service provides Minnesota shippers with a competitive advantage on several, but not all, transportation corridors.



INTERMODAL FREIGHT TRANSPORTATION IN MINNESOTA

**White Paper** 



Richard Stewart, professor of transportation and logistics at the University of Wisconsin–Superior and the director of the Transportation and Logistics Research Center, authored the white paper. Stewart's research for the paper included literature reviews, site visits, and interviews with shippers, carriers, terminal operators, freight forwarders, and third-party logistics providers. Download Intermodal Freight Transportation in Minnesota at dot.state.mn.us/ofrw/mfac.

One of the state's key intermodal advantages is that Minnesota is served by four Class 1 railroads. Three of those have intermodal terminals in the state that provide shippers direct connections to gateway ports on the northwest coast of North America, two provide service to Atlantic gateways through Canada, and one has service to the Gulf—all allowing seamless access to international markets.

#### **Challenges**

The four Class 1 railroads operating in the state do not have through tracks to southeastern and eastern U.S. ports or domestic markets. Either truck or rail carry Minnesota containers to Chicago or Kansas City intermodal terminals where they can be transferred for delivery to the East Coast or southeastern states.

Among Minnesota's other intermodal challenges, shippers must go through Chicago terminals to reach the Southern California ports of Los Angeles and Long Beach—the two largest domestic container ports in volume for imports and exports. This adds to the cost and time of intermodal shipments—if they are possible at all, due to the poor connections between Minnesota and Chicago.

Furthermore, Minnesota exports more than it imports, resulting in limited access to empty containers, especially for Minnesota agricultural exporters. This inhibits building intermodal terminals in rural Minnesota. In addition, trucks hauling empty boxes from Chicago or other out-of-state terminals—combined with hours-of-service regulations, highway congestion, and truck driver shortages—also contribute to increasing costs and time.

#### **Opportunities**

Closer collaboration and cooperation among all intermodal players offers the potential to address many issues, including container and depot access.

Intermodal terminal expansion also would bolster freight movement for Minnesota. For example, the new Canadian National Railway Duluth terminal has the potential to serve more international gateway ports, and the addition of another intermodal terminal on the Union Pacific rail line south of the Twin Cities would open a direct rail link to Southern California markets and ports and increase intermodal service. Union Pacific, however, has not announced any plans to construct an intermodal facility in Minnesota.

Minnesota Intermodal Terminals and Destinations		
FACILITY	DOMESTIC SERVICE DESTINATIONS	PRINCIPAL OCEAN GATEWAY DESTINATIONS
Minneapolis Terminal (Canadian Pacific)	Chicago, IL	Vancouver, BC Montreal, QC
St. Paul Intermodal Facility (Burlington Northern Santa Fe)	Chicago, IL Seattle, WA	Seattle, WA Tacoma, WA
Duluth Terminal (Canadian National)		Vancouver, BC Halifax, NS Montreal, QC Prince Rupert, BC Mobile, AL New Orleans, LA

#### Freight by the Numbers

5

number of carriers that may handle a typical intermodal shipment exported from Minnesota

7,000
number of trucking
companies that carry empty
international and domestic
containers

17 million
number of containers that
North American railroads
move annually

25 percent
the amount that rail
intermodal generates of total
revenue for Class I railroads



# Freight Rail and Air Cargo Poised for Growth

Minnesota railroads and air freight services invest in more capacity

Two very different types of freight—rail and air—share some common characteristics. Both are on track for continued growth. Both are making plans and investing to prepare for that growth. And both are important to Minnesota.

## Freight by rail

Freight rail is responsible for \$40 billion of Minnesota's GDP and at least 7 percent of the employment in the state, according to a 2016 study.

Four Class I railroads—the largest U.S. railroads—operate in Minnesota:

- Burlington Northern Santa Fe Railway (BNSF), about 1,500 miles of track
- Canadian Pacific Railway (CP), more than 1,100 miles of track
- Union Pacific (UP), more than 600 miles of track
- Canadian National Railway (CN), more than 400 miles of track

Minnesota also benefits from short lines, typically among the smallest class of railroads due to lower operating revenue and shorter service distance. Short lines, which add to system capacity by feeding into the Class I railroads, were spawned nearly 50 years ago with the deregulation of the railroad industry. A total of 17 short line or other regional railroads run in Minnesota.

BNSF moves more than 2 million carloads of freight in Minnesota annually, including more than 130,000 carloads of Minnesota corn, wheat, and soybeans, and large quantities of taconite mined from Minnesota's Iron Range.

"BNSF remains focused on strengthening our railroad to increase safety, serve our customers, and prepare for future growth," said Lydia Bjorge, BNSF Railway executive director for state government affairs in Minnesota and an MFAC member. BNSF has invested more than \$800 million in its Minnesota network over the past five years. Those investments focused on maintaining its network as well as expansion projects aimed at meeting customer demands. That also included technology investments ranging from trackside detectors that warn of possible equipment problems to continued implementation of positive train control (PTC) to further improve safety.

CP, the second largest railroad in Minnesota, also is committed to replacing depleted assets and completing network upgrades. CP, based in Calgary, Alberta, owns and operates a transcontinental freight railway in Canada and the United States. Its major terminals in Minnesota are located at St. Paul, Glenwood, Thief River Falls, and Waseca.

CP recently extended six receiving tracks at its St. Paul Yard, opened a new, more efficient connection to BNSF, and added more than 100 remanufactured heavy haul locomotives. CP also will spend \$500 million on 5,900 new grain cars.

#### Cargo by air

Though rails carry far more tons of freight, air cargo handles demand for timely transportation of low-weight, high-value goods, such as medical devices and electronic components.

Five airports account for the most significant freight traffic in Minnesota: Minneapolis/St. Paul International Airport, Duluth International Airport, Rochester International Airport, Thief River Falls Regional Airport, and Bemidji Regional Airport.

Air freight is helping industries meet increasing expectations for shorter delivery times, said Tracie Walter, director of operations and vice president of Bemidji Aviation and an MFAC member.

With the success of Amazon and just-in-time delivery, she said, Bemidji Aviation is experiencing growth in air cargo. In 2016, for example, Bemidji Aviation tallied 90,000 hours in 42 planes moving almost 7 million pounds of cargo. In 2017, with the purchase of Encore Air Cargo in Sioux Falls

and additional routes, those numbers almost doubled.

Bemidji Aviation also operates out of Minneapolis, Denver, Sioux Falls, and recently, two smaller towns: Morris and Wadena, Minnesota.

Aviation faces a significant challenge in finding qualified people to service and fly planes, she said. "It's a highly technical skill. It takes a long time to learn how to do it."

The Minneapolis/St. Paul (MSP) airport, Minnesota's largest airport, processes 450 million pounds of air cargo, said Neil Ralston, airport planner for the Metropolitan Airports Commission and an MFAC member. Air cargo accounts for approximately 5 percent of flights that take off and land in a given week.

Freight airlines for FedEx, UPS, DHL, and feeder operators fly approximately three-quarters of that cargo. In addition, MSP is looking forward to the remodeling and expansion of the building that DHL uses for its operations, set to open in early 2019.



Source: BNSF Railway 5

#### **The Great Northern Corridor Coalition**

The Great Northern Corridor Coalition (GNCC, greatnortherncorridor.org) connects Minnesota to the West Coast through a myriad of modes spanning 8 states, 3,331 railroad mainline route miles, 9 interstate highways, 15 ports, and 54 border crossings. The corridor is pivotal to the state's economy, says Charles Zelle, MnDOT commissioner. "The coalition isn't just about carriers—it is truly a public-private coalition."

The corridor stretches from the Midwest to the Pacific Northwest, forming an east-west artery of commerce with international connections. "GNCC continues to be a critical transportation link to the globe," said Curtis Shuck, executive director of the coalition.

The coalition exists to promote regional cooperation, planning, and shared implementation for programs and projects with the aim of improving multimodal transportation system management and operations along the corridor.

When events, population changes, and policy shifts disrupt systems, options in freight movement become vitally important. "Part of our investment strategy," Shuck said, "is about our ability to pivot quickly as markets change."

GNCC focuses on a range of concerns—from policies to issues such as highway and port congestion. The coalition recently lent its support for the TH10/

TH75 downtown grade-separation project in Moorhead, Minnesota. Fixing the issues in Moorhead will help rail traffic pass more quickly through the corridor.

It's that kind of systems thinking—looking at how the pieces impact the whole—that can make a big difference for freight.

"We need to be working together as a team—not just Minnesota, not just North Dakota, not just Montana or the Pacific Northwest Seaport," Shuck said. "As we speak with one voice, our voice becomes stronger."





## **Other Regional Freight-Related Partnerships**

Minnesota, primarily through MnDOT, regularly engages and partners with neighboring states to address regional freight issues. Partnerships, whether formal or informal, ensure regular dialogue occurs and that MnDOT has the opportunity to listen to and understand freight stakeholder perspectives. These partnerships can lead to collaboration on education, planning, and investing.

- Conference of Great Lakes and St. Lawrence Governors and Premiers (CGLSLGP, gsgp.org)
- Mid-America Association of State Transportation Officials (MAASTO, maasto.net)
- Mid-America Freight Coalition (MAFC, midamericafreight.org)
- Canada-United States Transportation Border Working Group (TBWG, thetbwg.org)
- Upper Mississippi River Basin Association (UMRBA, umrba.org)



# U.S. Trade Policy Changes Challenge Freight Industry

MFAC members consider the impact of international trade tariffs on freight in Minnesota

Corporate representatives last summer gathered in a Congressional hearing room to make their case for or against proposed international trade tariffs. Each testified about the potential impact of taxing imported goods from China. Though the majority of executives opposed the tariffs, a minority viewed action against China as beneficial.

Shortly after those hearings, the U.S. Government imposed tariffs on \$200 billion in goods from China, which sparked new Chinese tariffs on U.S. imports.

During the fall MFAC quarterly meeting, MFAC vice chair Jason Craig led a panel discussion with chair Ron Dvorak and members Bruce Abbe and George Schember to consider the implications of recent national trade policy decisions on the freight industry, especially in Minnesota.

"There is no doubt that there are companies in this room that are impacted one way or the other," said Craig, director of governmental affairs for C.H. Robinson.

## A range of reactions

Cargill ships a quarter-billion tons of product worldwide, including red meat, poultry, and grains. "When someone asks me about these tariffs—how do they impact your company—I would say yes, both good and bad," said Schember, vice president of transportation and logistics at Cargill.

Market reactions can cause changes in transportation logistics that may differ from product to product and situation to situation. Schember used public data from BNSF and Union Pacific railways to show examples for three products: soybeans, corn, and pork.

Soybean tonnage for BNSF dropped 70 percent in the last two quarters after experiencing increases. Corn shipments, however, rose 36 percent in the last four quarters. And producers responded to China's import tax on pork by moving product domestically, considerably tightening refrigerated domestic transportation.

Though tariffs can disrupt the market, the market eventually adjusts. "The market will sort itself out over time," Schember said, "and you will see short-term impacts that eventually become reversed as the long-term environment changes."



#### 2018: A Year of Tariffs

March 23: U.S. imposes tariffs on steel and aluminum imports from China and other countries

**April 3:** China places \$3 billion in tariffs on pork, wine, and other items

June 1: U.S. imposes tariffs on European Union, Mexico, Turkey, India, Canada, and others for steel and aluminum

**June 5:** Mexico places \$3 billion in tariffs on U.S. pork, apples, and other items

**June 21:** Turkey places \$1.8 billion in tariffs on U.S. alcohol

June 22: EU places \$3.2 billion in tariffs on U.S. whiskey and other items

July 1: Canada places tariffs on \$13 billion of U.S. goods

July 6: Mexico increases tariffs and adds to June 5 list

July 6: U.S. imposes tariffs on \$34 billion in Chinese goods, and China retaliates immediately with tariffs of \$34 billion in U.S. goods

August 23: U.S. imposes tariffs on additional \$16 billion in Chinese goods

**August 23:** China retaliates immediately with tariffs of \$16 billion in U.S. goods

**September 24:** U.S. imposes tariffs on \$200 billion in Chinese goods

**September 24**: China implements tariffs on \$60 billion in U.S. goods

September 30: U.S., Canada, and Mexico reach an agreement to replace NAFTA with the United-States-Mexico-Canada Agreement

#### The export dilemma

Industries that rely on exporting their goods to China are in a particularly challenging situation.

"This is a period of unprecedented turbulence for export markets in the U.S.," said Abbe, president and CEO of the Midwest Shippers Association, which represents specialty grain businesses.

"We have spent years promoting the U.S. as the most reliable supplier of the highest quality grains," he said. "It's tough for us in the agricultural export business."

More than 60 percent of U.S. soybean exports travel to China, he said, and the markets already are diversifying as China looks to other sources and European Union, Middle Eastern, and Southeast Asian countries are buying from the United States.

Changing freight destinations mean changes in freight patterns. "On the shipping side, it will adjust," Abbe said. "The market will go where it needs to go."

#### Flexibility and responsiveness is key

With the unexpected twists and turns that may continue to come, freight flexibility and responsiveness become even more important. "We do have options to go in many directions," Abbe said. "It's absolutely vital for Minnesota that we keep all systems in place, active, and able to go in all directions."

Duluth, home to one of the country's largest ports, serves as a key hub in moving mining, agricultural, and other goods from Minnesota to national and international destinations.

Though predicting the next steps for tariffs and other trade policy options can be at best challenging, a diverse and healthy freight system only helps Minnesota and its industries no matter what the future brings, said Dvorak, marketing director of Lake Superior Warehousing and Duluth Cargo Connect.

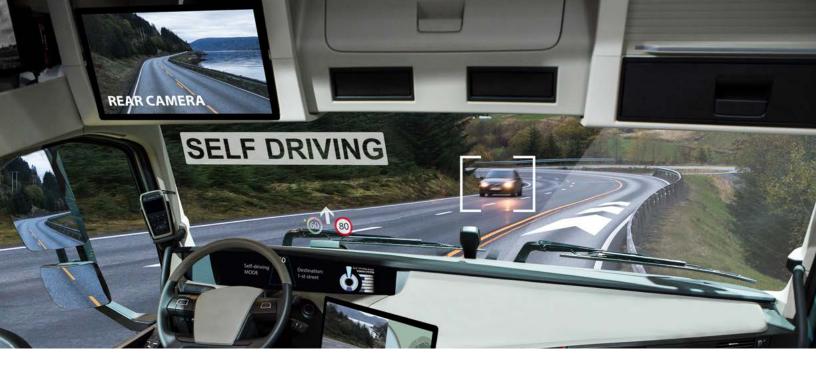
"It's very important that we continue to invest in the various ways that we can continue to serve the marketplace," he said. "The more options we have available to us, the more successful everybody will be."

# Top Minnesota Imports (2017)

China: \$11.1 billion
 Canada: \$9.5 billion
 Mexico: \$1.9 billion

# Top Minnesota Exports (2017)

Canada: \$4.2 billion
 Mexico: \$2.4 billion
 China: \$2.4 billion



# Planning for Connected and Automated Vehicles

New technologies provide benefits and pose challenges for freight and policymakers

Since the debut in 2015 of the first truck approved for autonomous operation on public roads, discussions have begun in earnest about the impact of connected and automated vehicles (CAVs) on the freight industry.

### **Strategic visioning**

In June, the Center for Transportation Studies at the University of Minnesota held a two-day strategic visioning workshop to prepare for the deployment of automated vehicles in Minnesota. Several MFAC members participated in the workshop, which convened public, private, academic, and nonprofit representatives and featured presentations from a wide range of experts.

The workshop produced strategic action plans for freight mobility and other topic areas of people mobility, traffic operations and safety, and planning, economic development, and the environment. Each strategic action plan includes a set of steps, potential champions, other key actors, and a recommended timeframe for implementation.

In December, the Governor's Advisory Council on Connected and Automated Vehicles issued a report recommending law and policy changes in support of CAV technology in Minnesota (for more, see page 10).

MnDOT also is developing a strategic plan to address short-term goals for testing and early deployments, and long-term strategies that consider the implications of CAVs on roadway design and operation, according to Jay Hietpas, executive director of the MnDOT CAV-X office and June workshop participant.

#### **AV Workshop Action Plan for Freight Mobility**

The action plan for freight mobility developed at the Strategic Visioning Workshop for Automated Vehicles in June includes a key role for MFAC. Highlights:

- Support enabling legislation for freight automated-vehicle testing, including identification of gaps and obstacles in legislation, review of legislation from other states, and consideration of short-term opportunities.
- Develop freight automated-vehicle pilot projects, including determination of locations for freight pilot projects, evaluation of corridors for freight platooning, and establishment of testing standards.
- Convene a consortium of freight players on automated-vehicle freight planning and deployment, ensuring comprehensive stakeholder involvement and collaboration with MFAC.

## **Challenges ahead**

CAV technology raises many often-complex issues, especially with regard to policy and particularly for freight.

"Public acceptance, driver acceptance, legal liability, residual value of technology-laden trucks, and the willingness of shippers and customers to pay more for freight hauled on the more-costly trucks remain the

biggest challenges to full implementation," said John Hausladen, president and CEO of the Minnesota Trucking Association (MTA) and an MFAC member who participated in the June workshop. "Also, transitioning to a mixed fleet of driver-assisted and legacy driver-controlled fleets on roadways presents significant barriers to overcome."

Hausladen emphasized that connected and automated vehicle technology does not replace truck drivers—rather, it assists them in performing critical functions. "The trucking industry believes that the truck driver will remain in the cab performing critical functions," he said.

In 2017, a new MTA policy reinforced the truck

## Minnesota Focuses on Truck Platooning as Next Step for Freight

Minnesota, led by the Governor's Advisory Council on Connected and Automated Vehicles, is moving closer to establishing a broader base of automated-vehicle regulations. Specifically for freight, the council is helping pave the way for truck platooning in Minnesota.



So far, 23 states allow truck platooning, and 29 states have

passed legislation on automated-vehicle testing. But current law is unclear whether automated vehicles and truck platoons may operate in Minnesota. Truck platooning is only legal in the state if the road authority designates a lane for use by trucks.

In December, the Governor's Advisory Council issued a report recommending that state law be changed so MnDOT and the Department of Public Safety can authorize truck platooning in collaboration with the public authority that has jurisdiction of the roadway.

In addition to truck platooning, the Governor's Advisory Council made recommendations for safe automated-vehicle testing, leadership and collaboration, transportation and infrastructure, vehicle registration, driver training and licensing, accessibility and equity, revenue, traffic regulations and safety, insurance and liability, cybersecurity and data privacy, land use and planning, and economic development, business opportunity and workforce preparation.

The report calls for continued involvement by stakeholders, including the freight community. It will help guide policymakers as they consider changes in 2019 and beyond. Get more information and a copy of the report at <a href="https://doi.org/do

driver's role and supports the continued development of optional, efficient, and safe driver-assist technology. It also encourages Minnesota to be a leader in testing and demonstration projects as well as addressing financial and policy barriers to driver-assist technology.

#### **Driver-assist systems**

Automated driving functions fall into three main categories: accelerating, braking, and steering, and many vendors already offer these functions as standalone options or integrated systems.

"Trucking fleets have already added cameras, lidar, radar, adaptive cruise control, forward crash mitigation systems, lane-departure warning, automated emergency braking, and rollover stability control," Hausladen said. "Lane-holding technology will be available in the near future."

In addition, truck platooning, which allows two or more trucks to travel in a convoy for increased safety and fuel efficiency, is gaining greater acceptance. Wireless technology enables the lead driver to control braking and acceleration for all trucks in real time, while drivers in each truck control steering.

"Safety is a core value of every trucking company," Hausladen said. "Any decision to adopt a new technology will be assessed through the lens of safety. If a technology enhances safety, either by itself or as a part of a larger array, carriers will incorporate it into their fleet."

### The promise of technology

"Technology is making big leaps and bounds," Hietpas said. "The technology will be there before the regulation and public acceptance will be there."

These technologies offer the potential to improve freight mobility, efficiency, and safety, Hietpas added. MnDOT will continue to involve MFAC and the freight community as the use of CAVs develops.

Though the development of new technology represents the first step forward, many other milestones lay ahead. It remains to be seen how quickly these new technologies become a regular part of the freight industry.

"We are competing in a worldwide global market," Hietpas said. "If Minnesota doesn't come prepared, we're going to be at a disadvantage compared to other countries and other states that are actually enabling these technologies and using them for the benefit of their businesses."



#### **Electric Logging Devices are Helping Reduce Violations**

When truck drivers push past hours-of-service limits, they face a greater likelihood of fatigue, which puts them and others on the road at risk.

But the federally required use of electric logging devices (ELD) is proving a valuable tool in helping more accurately track hours of service and avoid the dangers of driver fatigue.

"ELD is basically a device that synchronizes the commercial vehicle engine and automatically reports date, time, and location information," said Minnesota State Patrol Capt. Jon Olsen, an MFAC member.

The mandate to use ELD hit the books in 2015 as a way to improve compliance.

"The hours-of-service rule did not change," Olsen explained. "All that changed was how drivers are required to record their hours spent driving and working."

Though the federal regulation went into effect in December 2017, full enforcement of the ELD regulation began in April 2018. During its first months of full enforcement, ELD use has reduced the number of violations in Minnesota and nationally, Olsen said.

"When we look at the same time period in April to June last year, Minnesota had 213 different violations of false records—meaning we were able to detect where drivers fraudulently filled out their log books," he said. "Since the ELD mandate has taken effect, we have cut that number in half."

Nationwide, less than 1 percent of truck drivers received citations for not having an ELD in the first months of full ELD enforcement. Hours-of-service violations declined from 54,958 in April and May 2017 to 30,421 in April and May 2018.

"Overall, I think the industry has done a great job in embracing this mandate, and doing what they are required to do," Olsen said.





# Freight Expertise

#### MFAC Executive Committee (as of December 2018)



Ron Dvorak (Chair) Marketing Director, **Duluth Cargo Connect** 



Jason Craig (Vice-Chair) Director of Governmental Affairs, C.H. Robinson



Bill Goins (Past Chair) Worldwide Account Manager, FedEx



Bruce Abbe President & CEO, Midwest Shippers Association



Lydia Bjorge Executive Director, State Government Affairs MN/ND/SD, **BNSF Railway** 



Steve Elmer Planning Analyst, Metropolitan Council, Twin Cities' Area Metropolitan Planning Organization



**Bill Gardner** Director, Office of Freight and Commercial Vehicle Operations, Minnesota Department of Transportation



Jon Huseby District Engineer, District 8. Minnesota Department of Transportation



**Neal Young** Economic Analysis Director, Minnesota Department of **Employment and Economic** 

#### MFAC Members (as of December 2018)

John Brumbaugh, Transload Services Manager, Canadian Pacific Railway

James Carver, Director of Logistics Planning, Land O'Lakes

Ron Chicka, Director, Metropolitan Interstate Council, Greater Minnesota Metropolitan **Planning Organizations** 

Deb DeLuca, Executive Director, Duluth Seaway Port Authority

Meg Duncan, Director of Operations, Koch Logistics

Mariah Ethington, Board Member, Transportation Club of Minneapolis and St. Paul

Ed Fairbanks, MnDOT Tribal Liaison, Advocacy Council for Tribal Transportation

Todd Gilbert, President, Valley Cartage John Hausladen, President, Minnesota Trucking

Association

Tracey Hester, Director, Government Affairs, Target Corporation

Wayne Knewtson, President, Knewtson Soy Products, LLP

Shelley Latham, Business Development Manager, Perkins STC

Michael Loney, Senior Logistics Manager, Global Supply Chain, Medtronic

James McCarthy, Traffic Operation Engineer, Federal Highway Administration

Dan Murray, Vice President, American

Transportation Research Institute Lee Nelson, President, Upper River Services, LLC

Jon Olsen, Captain, Minnesota State Patrol Phillip Qualy, Minnesota Legislative Director,

UTU-SMART-TD (Sheet Metal, Air, Rail, and Transit Union)

Neil Ralston, Airport Planner, Metropolitan Airports Commission

Kathryn Sarnecki, Vice President of Redevelopment and Harbor Management, Saint Paul Port Authority

George Schember, Vice President, Transportation

Troy Schroeder, Northwest RDC Transportation Planning Director, Minnesota Association of **Development Organizations** 

Vicki Schwartz, Vice President of Logistics and Operations, The Schwan Food Company

Brad Shamla, Vice President, U.S. Operations, Enbridge Energy Company, Inc.

Eric Sieve, President, Council of Supply Chain Management Professionals-Twin Cities Roundtable

Shannon Stassen, Member, Coalition of Greater Minnesota Cities

Tracie Walter, Vice President/Director of Operations, Bemidji Aviation

Mark Wegner, President, Minnesota Regional Railroads Association

Bob Zelenka, Executive Director, Minnesota Grain and Feed Association

Dean Zuleger, Chief Operating Officer, Soldier



#### **MFAC Contacts**

Ron Dvorak (2018–2019 MFAC Chair), Marketing Director, Duluth Cargo Connect, 218-727-6646, ronald.dvorak@duluthcargo.com

**Andrew Andrusko**, MFAC Project Manager, Minnesota Department of Transportation, 651-366-3644, andrew.andrusko@state.mn.us

**Claire Johnson**, MFAC Program Coordinator, Center for Transportation Studies, University of Minnesota, 612-625-5608, johnsoc@umn.edu

On the web: dot.state.mn.us/ofrw/mfac

Prepared by:

#### **Center for Transportation Studies**

University of Minnesota 440 University Office Plaza 2221 University Avenue S.E. Minneapolis, MN 55414 612-626-1077 | cts@umn.edu | cts.umn.edu Editor: Michael McCarthy Writer: Darlene Gorrill Graphic Designer: Angela Kronebusch Photos: David Gonzalez/MnDOT, D R Gonzalez, BNSF Railway, Enbridge, Thief River Falls Airport Authority, Shutterstock To request this document in an alternative format, such as braille or large print, contact the MnDOT Office of Equity and Diversity at 651-366-4718 or 1-800-657-3774 (Greater Minnesota); 711 or 1-800-627-3529 (Minnesota Relay). You may also send an email to ADArequest.dot@state.mn.us.

Printed on recycled paper with 10 percent postconsumer waste.

