Regional Operations Forum Training Program

Module 7: Freight Operations & Management

Courtesy:

U.S. Department of Transportation
Federal Highway Administration

AMERICAN ASSOCIATION of STATE HIGHWAY and TRANSPORTATION OFFICIALS
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ITS Heartland Chapter

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Session Purpose

- Introduce Freight Management as a TSMO strategy

- Provide understanding of:

  - What is Freight Management?

  - Why is it important?

  - What are its benefits?

  - Examples of leadership actions

What is Freight Management?

Long Haul

Last Mile

What is Freight Management?

- Identifying and mitigating operations issues
    - Recurring bottlenecks, safety hotspots

- Disseminating information
    - Road conditions, truck parking, routing

- Collaboration with private sector

- Emerging technologies
    - Connected Vehicles, FRATIS

Freight Bottleneck Mitigation

Correct capacity deficiencies

- Low capacity left exits
- More through lanes

Shift or reduce facility demand

- Managed lanes
- Multimodal investments

Implement aggressive incident management

- Traveler information
- Queue warning systems
- Quick clearance

Deploy portfolio approaches

- Combinations of multimodal strategies

Freight Information Systems

www.511ia.org

- Provide truck specific information about restrictions, closures and conditions

- Target commercial vehicle operators
  - Dedicated web pages, apps, phone information
  - Market directly to truckers

Truck Parking

- National shortage of parking

- Demand exceeds supply at public rest areas and private truck stops

- USDOT, state DOTs, and private sector working to improve information and allocation of spots

- Truck Parking Information Management System (TPIMS) being deployed now in 8 Midwest states

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Truck Routing

- Subscription-based onboard navigation technologies warn drivers of upcoming conditions and restrictions

- Provide navigation optimized for trucks

- Can use public and private sector data

- Reduce infrastructure damage (bridge hits, bridge and road wear, etc.)

Private Sector Collaboration

- Managing truck arrival and departure at depots and ports to minimize idling and traffic congestion

- Providing freight signal priority at key intersections to minimize impact on traffic

- Work with private carriers to develop and support sustainable truck platooning strategies

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Emerging Technologies

- Connected Vehicles
  - Wyoming Connected Vehicle Pilot
  - USDOT Safety Pilot Model Deployment includes trucks
  - Peloton system allows trucks to form autonomous moving trains of vehicles to save fuel

- FRATIS
  - Combines strategies such as real-time navigation, traveler information and drayage optimization

Why is Freight Important?

- Truck VMT growing faster than passenger VMT
- Goods movement impacts overall transportation efficiency and safety
- Complements other TSMO strategies, including incident management, traveler information and multimodal coordination
- Freight moves the economy
- Sustains major industries
- Sustains domestic and international trade

Reliability is top operations concern of freight industry

What are the Benefits to Freight Management?

- Improves efficiency of goods movement, reducing emissions and costs

- Reduces congestion and delays

- Improves safety by reducing truck incidents

- Protects infrastructure

- Sustainable highways

- Supports the economy

Summary of Leadership Actions

- **Recognize** the importance and impact of freight in transportation plans

- **Involve** commercial vehicle operations in transportation planning

- **Utilize** available commercial vehicle funding resources

Recognize the importance and impact of freight in transportation plans

- Understand unique needs and restrictions on trucks

- Recognize growing truck VMT as share of total traffic

- Build technology to support specific information needs of trucks

Involve commercial vehicle operations in transportation planning

- MAP-21 / FAST Act:
  - Freight Advisory Groups (recommended)
    - Membership includes carriers, shippers, logistics providers
    - Involve ITS/operations staff
- Focus other efforts on matching issue to audience
- Think multi-agency, multi-jurisdictional and engage trucking community

Utilize available commercial vehicle funding resources

- Innovative Technology Deployment (ITD) Program – formerly CVISN

- Performance and Registration Information Systems Management (PRISM)

- Motor Carrier Safety Assistance Program (MCSAP)

Discussion

- Is your state participating in ITD or PRISM? If so, do you know the projects they are developing?
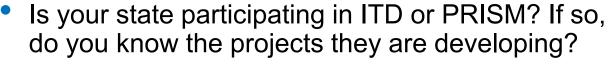
- Does your state have a freight management forum where public and private sector can participate?

- Has the commercial vehicle community been involved in your agency's CAV activities?

- Does your agency offer truckers any truck-specific information (e.g. parking, restrictions, road conditions)?

Freight Management Resources

- Federal Motor Carrier Safety Administration (FMCSA)

  - https://www.fmcsa.dot.gov/

- FMCSA Innovative Technology Deployment

  - https://www.fmcsa.dot.gov/information-systems/itd/innovative-technology-deployment-itd

- Freight Planning

  - https://www.fhwa.dot.gov/planning/freight_planning/

- Wyoming Connected Vehicle Pilot Project

  - https://wydotcvp.wyoroad.info/

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