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A slide titled "Presentation Overview" in blue. It features a bulleted list of topics: "Office of Freight Management and Operations", "Freight and SAFETEA-LU", "Intermodal Freight Technology Working Group (IFTWG)", "Cross Town Improvement Project (C-TIP)", and "National Freight Policy". The slide also includes the U.S. Department of Transportation logo in the top right corner and the Federal Highway Administration logo in the bottom right corner.

*Presentation Overview*

- Office of Freight Management and Operations
- Freight and SAFETEA-LU
- Intermodal Freight Technology Working Group (IFTWG)
- Cross Town Improvement Project (C-TIP)
- National Freight Policy

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## *Office of Freight Management and Operations – Objectives*



- Understand the magnitude and geography of freight moving on the nation's transportation system, including international freight
- Develop strategies, analytical tools, institutional arrangements, and professional capacities for all levels of government to address freight movement
- Understand and promote the economic benefits of freight transportation
- Encourage innovative freight technology & operations
- Enforce commercial vehicle size and weight requirements

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## *Freight and SAFETEA-LU - Grants*



- Projects of National and Regional Significance (1301)
  - ✧ Improve economic productivity, transportation safety, relieve congestion, facilitate passenger & freight movement
- National Corridor Infrastructure Improvement Program (1302)
  - ✧ Promote economic growth and international or interregional trade.
- Freight Intermodal Distribution Pilot Grant Program (1306)
  - ✧ Facilitate and support intermodal freight transportation initiatives

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## *Freight and SAFETEA-LU - Projects*

- Truck Parking Facilities (1305)
  - ✧ Pilot program to address the shortage of truck parking on NHS - Fed Reg Notice under review
- Freight Planning and Capacity Building Program (5204(h))
  - ✧ enhancements to freight planning to better target investment and strengthen decision-making capacity of State and local agencies
- Motor Carrier Efficiency Study (5503)
  - ✧ FMCSA to conduct study to identify inefficiencies in the transportation of freight on trucks

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## *Freight and SAFETEA-LU - Financing*

- Transportation Infrastructure Finance and Innovation Act(TIFIA) (1601) (easier entry)
- Private Activity Bonds (11-1143) (tax exempt privately owned or operated highway projects and rail-truck transfer facilities, under IRS)
- Rehabilitation and Improvement Financing (RRIF) (9003) (Loans 100%)
- National Cooperative Freight Transportation Research Program (5209) (USDOT in partnership with National Academy of Sciences (NAS). MOU Agreement made.)

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## *Freight and SAFETEA-LU - Programs*



- Coordinated Border Infrastructure Program (1303)
  - ✧ Projects in Canada and Mexico are eligible for funding
- Real-Time Systems Management Information Program (1201)
  - ✧ Establish capability in all States to provide real time:
    - \* Monitoring of traffic conditions
    - \* Sharing of information

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INTERMODAL FREIGHT  
TECHNOLOGY WORKING GROUP  
(IFTWG)  
GOVERNMENT AND INDUSTRY  
COLLABORATION



## IFTWG Historical Summary:

1998

Formed by joint recommendation  
Industry, government,  
military, vendors  
  
Chartered to address consensus needs  
Based on operational/  
process analysis

1999

Met regularly  
• 2-3 times/year w/ITS America  
• Communicated program/ project information  
• Formulated, planned, reviewed project results  
  
Identified/sponsored pilot demonstrations  
• Injected technology into business practices  
• Formulated to facilitate technical/operational evaluation  
• "Business case" analysis incorporated for sustainability analysis

2003

2004

Meetings  
• Two Annual meetings to coincide with IANA meeting  
• Intercessional Web Cast  
• Outreach to CHCP

2005

Project Planning Process  
• Revamped to expand industry participation  
• Introduced Working Group Project Vetting Process  
• Selection Process implemented  
• Introduced Analysis Tools focused on Business Process and Cost Benefit Analysis

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## Working Group Philosophy:



### The IFTWG is a Forum.

- For key members of the stakeholder community to collaborate across organizational and institutional boundaries
- For identifying, vetting, analyzing, and evaluating technological / procedural solutions to challenges within the intermodal freight transportation community
- For promoting the application and adoption of technology to improve freight movement

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## Stakeholders:

- Industry
  - ✧ **Members**: Union Pacific Railroad, American Presidents Line, Hanjin Shipping, Norfolk Southern Railroad, Landstar, Limited Brands
  - ✧ **Roles**: Real-world test bed, project champions, assets
- Government
  - ✧ **Members**: FHWA, TSA, RITA, CBP, Joint Program Office ITS
  - ✧ **Roles**: Facilitation, reduction/removal of barriers to collaboration
- Vendors
  - ✧ **Members**: Trac Lease, TTX, The Greenbrier Companies, QUALCOMM INC., Embarcadero Systems Corporation, Optimization Alternatives
  - ✧ **Roles**: Practical, responsive evaluation-ready solutions

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## CROSS TOWN IMPROVEMENT PROJECT (C-TIP)



## *Problem Statement*

- “The existence of cross-town rubber tire interchanges creates conditions that adversely impact:
  - ✧ the efficiency of the transportation network,
  - ✧ the safety of the motoring public, and
  - ✧ the security and quality of life of citizens in the communities through which they take place.”

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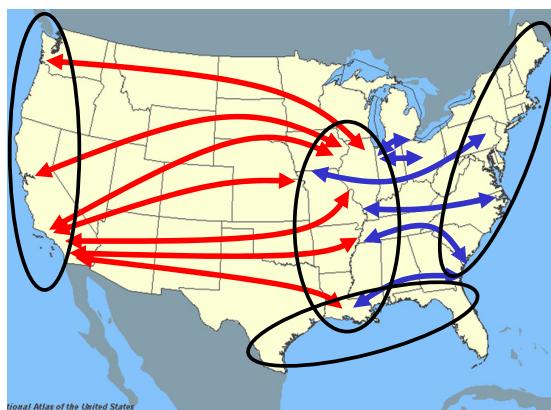
## *Areas of Concern*

- Interchange volume expected to increase proportionally to overall freight volumes
- Inefficiencies in cross-town interchanges lead to added traffic congestion and diminished air quality
- Bobtail and empty moves do not create revenue
- Bobtail tractors are inherently unsafe
- Empty trucks are not subjected to comprehensive security standards
- Lack of integration and communication results in fragmented operations

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## Background



- Railroads provide critical freight links
- Long haul railroads rely heavily upon interchanges for cross-continent movements
- Intermodal rail traffic converges on a handful of Midwestern cities
- Interchanges also occur in significant numbers in and around sea ports

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## Rail-to-Rail Interchanges



- There are five major East-West intermodal exchange points
- Chicago is the largest example
  - ✧ Intermodal crossroads
    - 6 Class I railroads interchange
    - 20+ major rail yards
  - 20,000 daily intermodal truck moves (Source: CREATE)
  - Nearly 1/3 are cross-town
  - At least 10% are Bobtails
- Other hub cities experiencing same situation on a smaller scale:
  - ✧ Kansas City
  - ✧ Memphis
  - ✧ St. Louis
  - ✧ New Orleans

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## Congestion Increases

- FHWA Freight Analysis Framework (FAF) predicts significantly worsening congestion at interchange locations
- Congestion at key locations where cross-towns occur:

Figure 1. Freight Flows by Truck: 1998 (daily truck volumes)



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Note: Alaska and Hawaii are at a different scale than the continental United States.

Figure 2. Freight Flows by Truck: 2020 (daily truck volumes)



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Note: Alaska and Hawaii are at a different scale than the continental United States.

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## Bobtail Moves

- Empty moves between terminals occur at a high frequency
- Bobtail moves are inherently unsafe

	Crashes (number)	Rate (per million miles traveled)
Bobtail	314	30.3
Single	5,179	6.8
Double	509	5.7

Source: The Michigan Heavy Truck Study, Executive Summary 1990

*"The bobtail configuration clearly has the most serious problem safely negotiating the highway system"*

- The Michigan Heavy Truck Study, Executive Summary, 1990



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## Impact on Communities

- Congestion is worsening
- Service level degradation across all modes
- Deteriorating air quality
- Reduction in safety
  - ✧ Bobtails inherently unsafe
  - ✧ Large number of trucks on city streets
- Bobtail moves are eroding carrier profitability

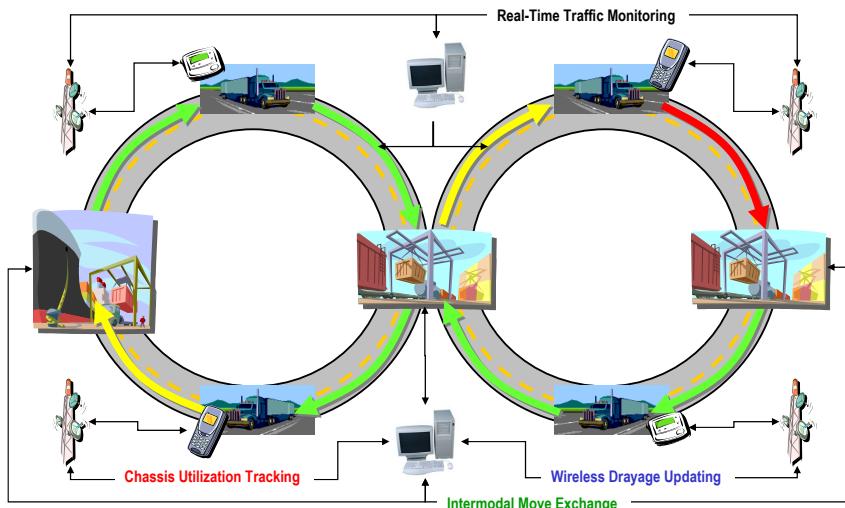


AAP Foundation for Traffic Safety

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## Solution



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## Public Benefits

- Improved Efficiency
  - ✧ Fewer overall moves leads to congestion mitigation
- Improved Safety
  - ✧ Fewer overall moves leads to less accidents
  - ✧ Reduction/elimination of unsafe bob-tail moves
- Reduction in negative Environmental factors
  - ✧ Fewer overall moves leads to less pollution
  - ✧ Improved air quality



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## Private Industry Benefits

- Improved Efficiency
  - ✧ Reduced costs and higher utilization rates for drayage providers
  - ✧ Increased driver results and retention
- Increased reliability and availability of key data
- Reduced growth rate of capital investment in assets and real estate
- Higher rate of terminal capacity recovery
- Reduced dwell time of loads prior to departure
- Reduced chassis inventory and repositioning



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## Why Kansas City?

- Smaller hub cities are also affected by these issues
- Kansas City is the second largest rail hub in the US
- Significant risks associated with a pilot study in Chicago
  - ✧ Too large a scope
  - ✧ Significantly more expensive
  - ✧ Very visible to the public
- While not as significant a problem, benefits will be seen
- Results will be directly transferable to other cities



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## Statements of Support

- State of Missouri
  - ✧ KC SmartPort – promotes inland port operations in KC
  - ✧ KC Scout – ITS traffic incident management program
- Railroad Companies
  - ✧ Union Pacific Railroad (2 terminals in KC area)
  - ✧ BNSF Railway (2 terminals in KC area)
  - ✧ Kansas City Southern Railway (1 terminal in KC area)
  - ✧ Norfolk Southern Combined Railroad (1 terminal in KC area)
- Trucking Companies
  - ✧ In-Terminal Services
  - ✧ Mid-Cities Motor Freight, Inc.
  - ✧ Greer Transportation
- Intermodal Association of North America (IANA)
  - ✧ Provides coordinative, educational, and technical support services to the intermodal freight industry

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## Summary

- “Cross-town” interchanges occur frequently, and are expected to grow in number
- Interchanges are currently deficient
  - ◊ Efficiency
  - ◊ Safety/Security
  - ◊ Environment
- Coordinated intermodal solution is required
- Need to leverage technology
  - ◊ Multi-part deployment
  - ◊ Public/private partnership
  - ◊ Repeatable, expandable, scalable solution
- Next steps...secure funding and begin detailed planning

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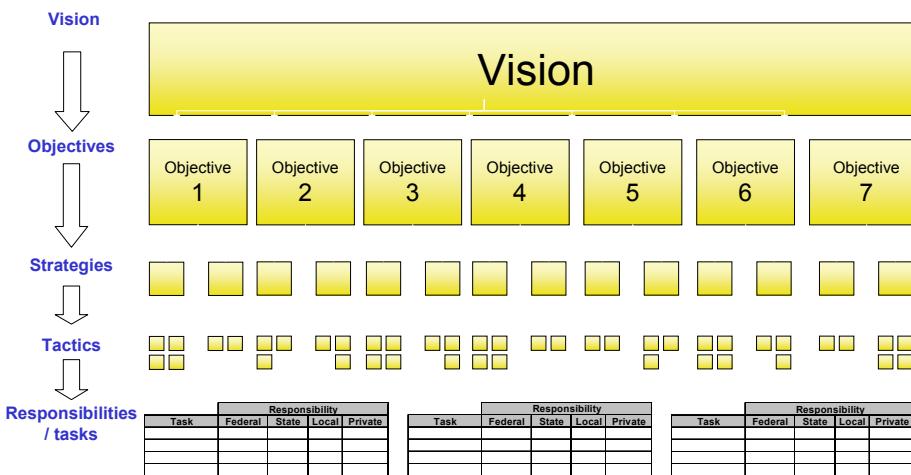
## NATIONAL FREIGHT POLICY

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## Draft framework for a national freight policy



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## Objective 1: Improve the operations of the existing freight transportation system



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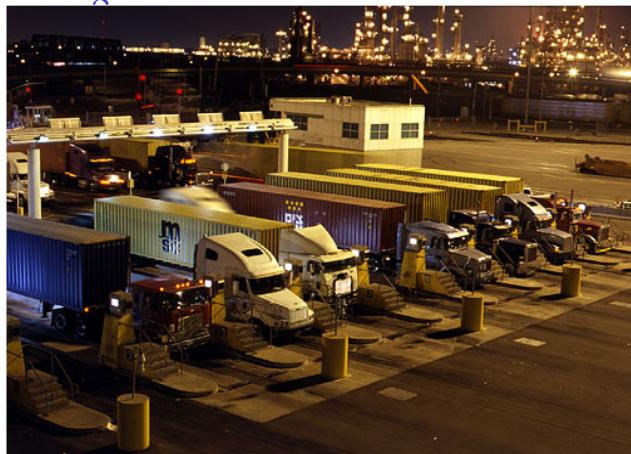
*Objective 2: Add physical capacity to the freight transportation system in places where investment makes economic sense*



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*Objective 3: Use pricing to better align freight system costs and benefits and encourage the deployment of new technologies*



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*Objective 4: Reduce/remove statutory, regulatory, & institutional barriers to improved freight transportation performance*



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*Objective 5: Proactively identify and address emerging transportation needs*



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*Objective 6: Maximize the safety and security of the freight transportation system*



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*Objective 7: Mitigate and better manage the environmental, health, and community impacts of freight transportation*



Photo courtesy of [www.railindustry.com](http://www.railindustry.com)

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## An illustrative example: The promotion of idle reduction opportunities

### Vision:

The United States freight transportation system will ensure the efficient, reliable, safe and secure movement of goods and support the nation's economic growth while improving environmental quality.

Objective 1

Objective 2

Objective 3

Objective 4

Objective 7. Mitigate and better manage environmental, health, and community impacts of freight transportation

7.1. Pursue pollution reduction technologies and operations



7.1.1. Promote idle reduction opportunities



Task	Federal	State	Local	Private
Raise awareness of new eligibility for idle reduction projects	X			
Implement 400lb weight exemption for idle reduction equipment on commercial motor vehicles	X			
Implement locomotive idling reduction technologies and strategies				X
Explore terminal operation strategies to reduce idling				X

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### ➤ Overarching themes

- ✧ Framework for *national*, not *Federal*, freight policy
- ✧ Importance of investment
- ✧ Need for public-private collaboration
- ✧ Living document

### ➤ Want to know more?

- ✧ Draft framework available at [www.dot.gov/freight](http://www.dot.gov/freight)
- ✧ USDOT appreciates your feedback on the framework; please email comments to [freight@dot.gov](mailto:freight@dot.gov)

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*Questions?*

*Further Information at:*

*<http://www.ops.fhwa.dot.gov/freight>*

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