NEXTRANS Center Inaugural Summit:
Intermodalism Panel Session

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A) (Future) Challenges

• Connectivity
  – Each mode is designed for maximization of combination of multiple criteria
    • Profit, mobility, safety,….
  – Historical planning, financing, etc.
    • Uni-modal
  – How to account for connectivity?
A) (Future) Challenges

• Example 1: Railheads in Kansas City
  – Local vs Global Optimum
• Example 2: Inland Port
  – Railways, roadways, waterways, airfreight
  – Effect on infrastructure (see Ethanol)
• Example 3: Flood damage
  – Western USA – Factories close in China
  – Redundancy
A) (Future) Challenges

- Congestion
  - Time, productivity ... wasted resources
- Fuel costs
  - Changes in operations
- Environmental Factors
- All inter-related
  - Most efficient modes....
  - Capacity (rail, ports, roads, ...)
    - Obtaining rights to expand & grow
  - Finances
    - funds – procurement
A) (Future) Challenges

• Passenger: multi-modal transit
  – rail, bike, pedestrian environment
• mixed used centers
  – Planning for future...
B) Integrated solutions?

- Hard to find an inter-modal challenge that is not integrated
  - Managers of each mode knows it’s system and can optimize given constraints
- Unlikely to be globally optimal
C) Gov. – Industry – Academia Partnership

- Information
  - Government: needed and wanted
  - Private sector
    - trucking – road conditions
      - Right information, Right time, Right location Right cost
- Security
- Regulation
- Financing
D) Integrated Solutions: Change approach?

- Research
  - Multi-disciplinary
  - Engineers do not need to become specialists in other disciplines
- Education
  - Multi-disciplinary
    - Meet needs of stakeholders (rail)
  - Multi-modal
    - Technical: competence
- Implementation
  - Intellectual Property
E) Gaps – UTC’s

- Basic and advanced research
- Honest broker
  - Can accomplish things that others can’t
- Strengths
- Leadership in Education
- Technology transfer
  - Summit
    - Public, private, academia -- good example
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Intermodalism

- Existing transportation infrastructure across multiple modes can be leveraged to address challenges related to mobility and consequent negative impacts. This session seeks innovative approaches/mechanisms to integrate transportation/logistics solutions across modes to address challenges related to multi-sector stakeholders, limited budgets, energy security, ecological footprint, and performance efficiency, to move people and goods.
Overview of Panel Session

• Introduction
  – ~ 10 minutes
  – Discuss Format and Introduce Panel Members
• Panel Discussion
  – ~ 25 minutes
  – Questions from Moderator to Panel
• Open discussion
  – ~ 30 minutes
  – Open discussion by all participants
• Wrap up
  – ~ 10 minutes
  – Moderator will present key findings at general session
• National domestic freight transportation (tons)
  – Grew by about 20 percent from 1993 to 2002
  – Expected to increase another 65 percent to 70 percent by 2020 (FHWA)
A) (Future) Challenges

• Supply/delivery models
  • changing based upon fuel costs
  • location of distribution centers
    – multi-modal