Intermodal Container Transport System Solutions for Chicago
Commodities
  ◦ Manufacturing Facility > Destination
ATA’s For-Hire Truck Tonnage Index

Seasonally Adjusted; 2000 = 100
Through August 2008*

Tonnage is up!
• Demand

The August number is an estimate and not an official number.

Source: ATA
Trucking Failures

- High Company Failures
  - Diesel Cost
  - Economy

Failures only includes fleets with at least five trucks

Source: Avondale Partners, LLC
Trucking Fleet is Down
- 2.6% in 2007
- −1.3% in 1st Half of 2008

Available Truckers
- Life Style
- Hours of service regulations
  - 11 ON – 10 OFF (60Max per week)
  - America’s most treacherous industry

Slip Seating
- Living in some one else's bed. {Slip Seating is...}
  Capacity needs to improve in order to meet the demand
Objective

+50% Capacity = +50% Pollution

“Increase the capacity without increasing the pollution”

Intermodal: Containers: Trucks > Rail

- Facility Capacity Expansion
  - Flipper
  - Land Expansion & Efficiencies
  - CNG Station

- Resource Management
  - Energy Integration
  - Windmill
  - Natural Gas
Norfolk Southern Yard Visit

Preliminary Investigation

- Gathered Hard Data
- Discussed Future Projections
  - 5yr Plan
- Observed Processes

- General Yard Layout & Functions
Fuel in Question

- Diesel
  - Cost of refinement
  - Truck

- Bio Fuel
  - Not readily available
  - Truck

- LNG
  - Cost of production

- CNG
Natural Gas

- North America: 40%
- Russian Federation: 8%
- Middle East: 8%
- Other Europe & Eurasia: 4%
- South and Central America: 4%
- Africa: 9%
- Asia Pacific: 27%
Pipelines

Legend
- Blue = Interstate Pipelines
- Red = Intrastate Pipelines

Source: Energy Information Administration, Office of Oil & Gas, Natural Gas Division, Gas Transportation Information System
CNG Station

- LNG vs. CNG

Benefits:
- Road Tax – License
- No Interference
- Very Very Available
- Rebates
Windmill

Integration:
- Light Towers
  - Power Lights
  - 100ft

Display:
- Black Light Fixture
- Florescent Paint
Reducing Idle Time

Flipper:
- Slip Seating Improvement
  - Live in your own bed!
- Crane Operation
- Live Lift (Ideal)
  - Next best thing
- Overall Improvement in Efficiency!

- Floored Parking
  - Not feasible
    - Cost & Strength
Horizontal Expansion

Limited Expansion!
Thanks To:

MiJack (Sponsor)

• Norfolk Southern

Zero Energy Lab
  • Grid Interconnection
  • Wind Velocity Test

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