Agricultural Outlook Forum

Rail Transportation Issues

February 27, 2009

Paul Hammes – VP & GM Agricultural Products Marketing & Sales
America’s Transportation Solution

- Safest Form of Ground Freight Transportation
- Moves 1 Ton 790 Miles on 1 Gallon of Diesel
- Reduces Greenhouse Gas Emissions by 67%

Congested Highway System Creates “Infrastructure Tax” on America - $8 Billion Annually
Major North American Class I Railroads

- Miles of Track: 161,114
- Originated Carloads: 31.46 M
- Freight Revenue: $52.9 B

Fast Facts
UP Franchise – Tremendous Opportunities

UP at a Glance

- Miles of Track: 32,300 in 23 States
- Employees: 49,000+
- Customers: 25,000
- Locomotives: 8,700+
- Freight Cars: 94,000+

Agricultural Products: 18%
 Autos: 8%
 Chemicals: 15%
 Energy: 22%
 Industrial: 19%
 Intermodal: 18%
Union Pacific Railroad

Agricultural Products

Revenue Mix

- Grain Products 40%
- Whole Grains 36%
- Food & Beverage 24%

Agricultural Density Map
Lane thickness depicts carload density

- Domestic 75%
- Mexico 15%
- Export 10%
Rapid Volume Decline
7-Day Carloadings (000s)

Start of 4th Qtr.

Feb 7, 2009
Resource Update

Year-End

**Locomotives**

- 2007: 8,721
- 2008: 7,200

**TE&Y Employees**

- 2007: 21,950
- 2008: 18,062

- 3,150 Furloughed

**AAR Inventory**

- 2007: 308,300
- 2008: 240,993

- 1,200+ Stored

*Represents Year-End Levels Minus Extra Resources*
Rail Impact on Transportation

**US Rail Shipments**
- 37% Intermodal
- 27% Coal
- 26% Ag
- 10% Other Carload

**Modal Share Ag Freight**
- 51% Rail
- 13% Barge
- 13% Truck
- 36% Other

Source: AAR, 2008
Source: USDA – Ag Marketing Service, 2006
Rail Efficiency

U. S. Freight Ton-Miles by Mode* 2005

- Rail: 40%
- Truck: 30%
- Water: 15%
- Pipeline: 15%

Energy Consumption by Mode** 2005

- Truck: 65%
- Water: 18%
- Pipeline: 9%
- Rail: 8%

*Source: U. S. Bureau of Transportation Statistics

**Source: U. S. Department of Transportation
Role of Railroads with U.S. Agriculture

• Infrastructure and Equipment
• Service
• Productivity
• Market Access
Infrastructure and Equipment

- **2008 Iowa Bridge**
- **2008 Oregon mudslide**
- **Maintenance of Way**
- **2008 Midwest floods**
Infrastructure and Equipment

2009 UP Capital Investments

- Replacement /Renewal Programs
  - Safety
  - Velocity
  - Throughput
- Long Term Growth Projects
  - Sunset /Intermodal
  - Coal Capacity/Red X
- Enhance Throughput Productivity

$2.8 Billion Capital Plan - UP

In Millions

- Engineering Replacement $1,800
- Locomotives/Equipment $400
- Capacity/Commercial Facilities $450
- Technology/Other $150

Replacement

Growth and Productivity
Infrastructure and Equipment

Impacting UP Agricultural Products

Red “X”

• 40% of UP Business Traverses Corridor

• Large Capital Spend Will Benefit Ag Products

Capital Spend to Support Ag Products Growth

• $75 Million in IA/ MN

• $19 Million in NE
Service

Ag Unit
Release to Train Arrival – 4%

Best:
Yr: 86.1 (2008)
Mth: 95.0 (5/08)

2006  64.5
2007  78.6
2008  85.8
Jan-09  83.9

Ag Manifest
TPC – 8%

Best:
Yr: 70.1 (2008)
Mth: 73.2 (5/08)

2006  64.5
2007  68.8
2008  70.1
Jan-09  68.2
Service

Customer Satisfaction Index – Union Pacific

Total Union Pacific

- 2006: 72
- 2007: 79
- 2008: 83

Union Pacific Ag Products

- 2006: 69
- 2007: 76
- 2008: 81
Productivity Measures

- **AAR Velocity (MPH)**
  - 2005: 21.1
  - 2006: 21.4
  - 2007: 21.8
  - 2008: 22.2
  - July: 22.8
  - Aug: 23.7
  - Sep: 23.6
  - Oct: 23.9
  - Nov: 24.0
  - Dec: 25.3
  - Jan: 26.1
  - Feb: 26.8

- **AAR Terminal Dwell (Hours)**
  - 2005: 28.7
  - 2006: 27.2
  - 2007: 25.2
  - 2008: 25.2
  - July: 24.5
  - Aug: 24.2
  - Sep: 23.8
  - Oct: 23.4
  - Nov: 25.1
  - Dec: 27.3
  - Jan: 26.0

- **Industry Spot/Pull (Percentage)**
  - 2005: 81
  - 2006: 89
  - 2007: 93
  - 2008: 93
  - July: 94
  - Aug: 94
  - Sep: 95
  - Oct: 95
  - Nov: 96
  - Dec: 95
  - Jan: 95

- **Freight Car Utilization (Cycle Days)**
  - 2005: 11.0
  - 2006: 10.5
  - 2007: 9.8
  - 2008: 9.4

**Good**
Recoverability & Process Initiatives

Network Interruption Days*

2Q 2007: 45
2Q 2008: 54
+20%

*Defined as a day with Hours Held > 50 Hrs for Weather and/or Incident

Velocity (MPH)

2Q 2007: 21.6
2Q 2008: 22.8
+6%
Technology Improvements

- Distributed Power
- Unit Train
  Customer Interface
- Computer Aided
  Dispatching III
- Electronic Control
  Pneumatic Braking
- Communication-based
  Train Control

Conventional Train Operations

Distributed Power Train Operations
Market Access

*Linking Production and Consumption - Ag Products*

- **Access**
  - Major Grain and Produce Regions
  - Flexibility to Meet Demands of the Market
    - Ethanol
    - Feed/Processors
    - Export

- **Infrastructure**
  - Refrigerated Boxcar Fleet
Rail Transportation Issues

- Safety
- Shipment Variability
- Capacity
- Capital
- Legislative Policy
Safety- “Zero Tolerance”

Employee

Personal Injury Incidents Per 200,000 Man-Hours

- 54% Improvement

Public

Crossing Accidents Per Million Train Miles

- 29% Improvement

Customers

Incidents Per Million Train Miles

- 41% Improvement
Railroad Issues

Shipment Variability - Grain

Commodity

Time

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

2007 2008

Geography

1Q 2Q 3Q 4Q 2007 1Q 2Q 3Q 4Q 2008

Corn Beans Wheat

1Q 2Q 3Q 4Q 1Q 2Q 3Q 4Q 2007 2008

Gulf Mexico PNW
5 Critical Resources

Shared & Interconnected

Workforce

Main Lines

Freight Cars

Terminals

Locomotives
Railroad Issues

Freight Demand Growing….

Billions of Tons of Freight Transported in the U.S.

- 1998: 15.3
- 2002p: 19.3
- 2035p: 37.2

p – preliminary
Capacity Challenges

- **Economy**
  - Recession hasn’t hit bottom
  - Costly assets in storage

- **Washington**
  - Balanced regulation
  - Conflicting oversight with anti-trust bill

- **State & local government**
  - Increased interest in commuter rail
  - Rail expansion

![Graph showing throughput and demand over years](chart)
Railroad Issues

Capital Spending - UP

Net Income
($ in billions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Income</th>
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<tr>
<td>2003</td>
<td>$1.585</td>
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<tr>
<td>2008</td>
<td>$2.338</td>
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+48%

Capital Investment*
($ in billions)

<table>
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<th>Year</th>
<th>Capital Investment*</th>
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</thead>
<tbody>
<tr>
<td>2003</td>
<td>$2.1</td>
</tr>
<tr>
<td>2008</td>
<td>$3.1</td>
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</tbody>
</table>

+48%

*Includes cash capital, non-cash capital and lease financings
Rail Issues

Legislative Policy

• Anti-Trust Exemption
  – Mergers
  – Equipment Pooling

• Investment Tax Credit
  – 25%
  – New Construction That Expands Rail Capacity
  – Railroads, Shippers, Receivers All Eligible
2009 Outlook

- Overall US Economy
- Exports
- Domestic Feeding
- Bio-fuels
- Ocean Freight