



**AMERICAN SHORT LINE AND
REGIONAL RAILROADS**

Connecting America's Communities
Strengthening America's Economy
Protecting America's Environment

Government Accountability Office Presentation

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**American Short Line and Regional Railroad Association
Presentation to**

**Mr. Matthew Butler and Mr. Andrew Huddleston
Washington, DC**



www.aslrra.org

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The Short Line Profile



Short Line Role

- “First Mile – Last Mile” of U.S. Freight Rail Commerce
- Primarily Serves Routes of 500 Miles or Less
- Connects Rural, Agricultural, Industrial Sites, and Port and Urban Hubs to the National Rail Freight Network
- Interchanges Rail Traffic with All Class I Railroads
- Preserves 50K Route Miles of the National Freight Rail Network
- Maintains Segments of the DoD Strategic Railroad Network (STRACNET)
- Delivers and Receives Cross Border Freight with Mexico and Canada



Short Line Operations

- Short Lines: 572 that Operate in 49 States
- Traffic Type: Received Freight: 50%
 Forwarded Freight: 36%
- Carloads: 12.2M per annum
- Commodities: Coal: 22%
 Food & Agriculture: 18%
 Steel and Metals: 10%
 Paper and Wood: 9%
 Chemicals: 6%
 Minerals and Ores: 4%
- Facilities Served: 12K
- Employed as a Result of Short Lines: 1.5M

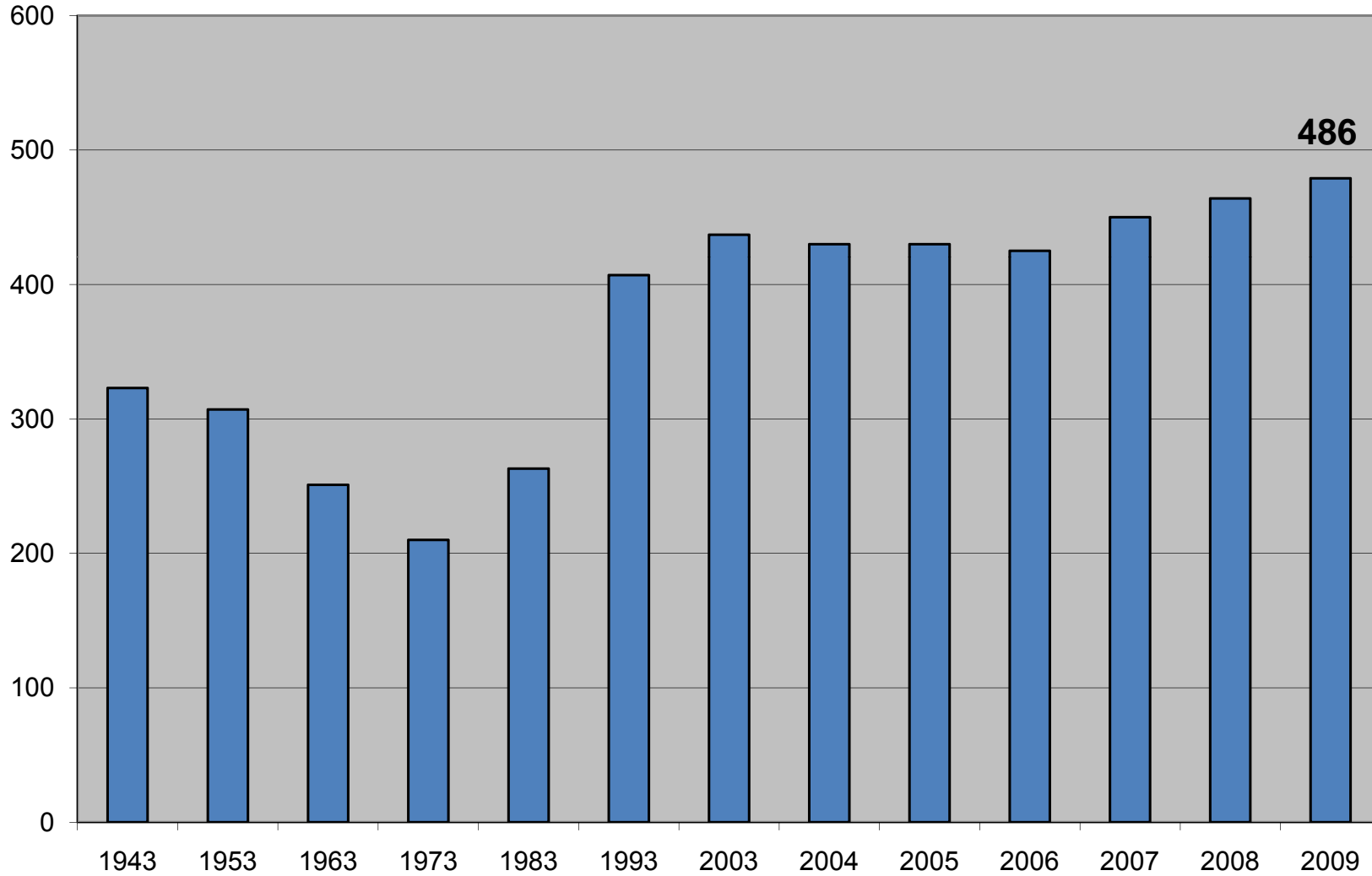


Short Line Operations (Cont'd)

- Locomotives: 4,050
- Class I Connections: 333 Short Lines Have 2 or More Connections
- Average Length: 90 Miles
- Employment: 20K
 - Short Line Average: 22
 - Regional Average: 235

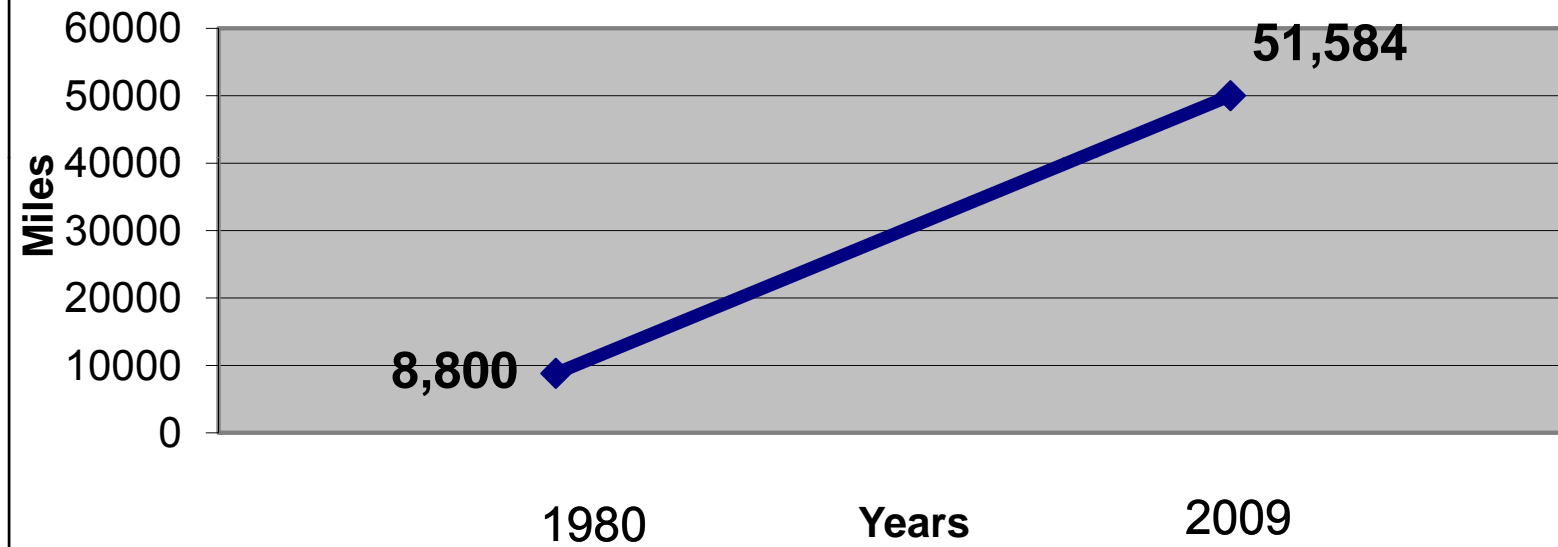


ASLRRA Member Railroads





Growth of Short Line Route Miles

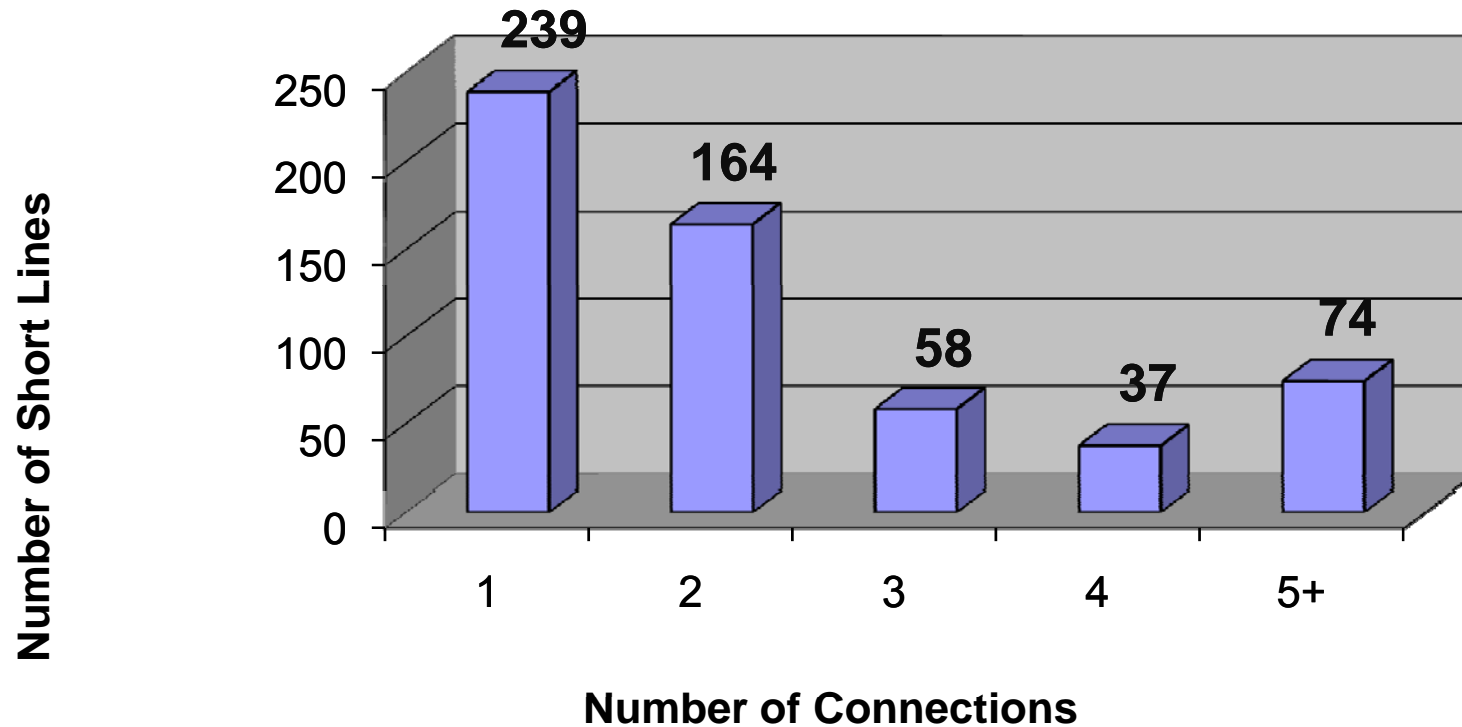


- **1980 Staggers Act:**

- * More Than 465% Route Miles Growth Over the Course of 25 Years . . .
- * Creation of 172 Short Lines – 31% Growth – Totaling 556



Number of Class I Connections



Over 300 Short Line Railroads Have More Than One Class I Connection



Rail Industry Carloads 2008 - 2009

Class I's – Short Line Traffic Only

<u>RR</u>	<u>2008</u>	<u>2009</u>	<u>Variance</u>
BNSF	1,247,000	1,060,000	- 15.0%
CN	518,783	406,163	- 21.7%
CSX	955,325	800,391	- 16.2%
KCS	202,682	147,468	- 27.2%
NS	983,959	800,292	- 18.7%
UP	986,166	795,133	- 19.4%

Legislative, Regulatory, Security



Rail Safety Improvement Act of 2008

1. **Positive Train Control** – Implement 2015; **FRA Final Rule 01/10**
2. **Hours of Service** – RSAC Completed: Final Rule 07/09; **In Effect 07/16/09**
3. **Bridge Safety Requirements** – RSAC Completed; **NPRM 08/ 09; Final Rule 05/10**
4. **Grade Crossing Inventory** – **Completed by 10/16/09; NPRM 2010**
5. **1 – 800 ENS** – Implement Within 18 Months – **NPRM, Then Final Rule**
6. **Risk Reduction Program** – **Final Rule 10/12**
7. **Top 10 States Require Xing Action Plan** – FRA Ongoing
8. **Dark Territory Switch Technology** – Future RSAC
9. **Broken Rail Service Failure Rate** – Study
10. **Certify Conductors** – RSAC 07/09 – 12/09 – **RSAC Voted Consensus**



Rail Safety Improvement Act of 2008 (cont'd)

11. Certify Carmen – Study
12. Sight Distance Law & Regulations at Xings – FRA Ongoing
13. Radio Monitoring Authority – **In Effect**
14. Civil Penalties \$25K-\$100K – **In Effect**
15. 800 New FRA Inspectors – Implement Hiring 2009 – 2010
16. Minimum Training Standards and Plans – **RSAC Ongoing**



Ongoing and Significant

FRA Rail Safety Advisory Committee (RSAC)

1. Railroad Operating Rules / Human Factors – RSAC Ongoing (New Task – Texting)
2. Medical Standards for Train Crews for Safety Critical Employees – Ongoing
3. Private Crossings – Reporting Done
4. Roadway Worker Protection Rules and Requirements – Awaiting NPRM – Done
5. Passenger Safety – Ongoing
6. Rail Integrity – Ongoing
7. Concrete Ties Utilization – Ongoing
8. Bridge Inspection and Maintenance – Final Rule 2010 – Done
9. Tunnel Standards – No Immediate Requirements
10. Locomotive Standards – (NPRM at OMB) – Done
11. ECP Brake Specifications and Requirements – Waivers in Effect – No Action Required
12. Positive Train Control Implementation, Standards, Rules – FRA Final Rule Jan. 2010



Ongoing and Significant (Cont'd)

13. Conductor Certification – Ongoing
14. Minimum Training Standards for Safety Related Railroad Employees – Pending FRA Task Statement Announcement

Other

15. Pressure Tank Car Specifications – No Action Required**
16. Accident / Incident Reporting Requirements – Waiting Final Rule – Ongoing**
17. HazMat Risk Assessment / Routing Rules – 09/09 – Ongoing**
18. Emergency Escape Breathing Apparatus Requirements – NPRM 10/09**
19. Emergency Call Numbers at Grade Crossings 24-7-365 Call Centers – Awaiting NPRM – Ongoing**
20. At Grade Crossing Inventory – 16/10/09 – Done**

** Not RSAC



Ongoing and Significant (Cont'd)

Other

21. Continuous Welded Rail Standards – Final Rule 08/09 – Ongoing**
22. Narrow Band Radio Frequency Change and Equipment – FCC Requirement; 07/10 – 01/13 – Ongoing**
23. Locomotive Horn Testing and Record Keeping – NLT 06/10 – Ongoing**
24. Risk Reduction – ANPRM 04/10; Final Rule 10/12 – Ongoing**
25. EPA Locomotive Rules – Ongoing**
26. Uniform Rail Costing System (URCS) – Ongoing (STB Review and Analysis Begins 2010)

** Not RSAC



Security – ASLRRA

Industry Measures in Place Today:*

1. Required Plans Covering Security for all Railroads (Rail Industry Plan) – TSA
2. Updated Security Plans with Special Annexes – Rail Industry
3. Threat-Based Requirements and Analysis On-Going – Rail Industry
4. Security Training / Awareness Required – TSA NPRM Pending 2010
5. IED Training Required for all Railroads – TSA NPRM Pending 2011
6. TSA Security Grants Awarded for Short Line Training
7. Communications Security Focus – Rail Industry / TSA
8. GPS on some Shipper Owned Chemical Cars – TSA / Chemical Industry
9. TIH Car Positive Hand-Off – In Effect April 1, 2009 – TSA
10. New Hardened Tank Car Standard – Rail Industry / FRA

* None in 2001



Security – ASLRRA (cont'd)

Industry Measures in Place Today: *

11. FreightScope Tracking Software for TIH Cars Nationwide – Short Line / FRA
12. Coordination with Military and Federal Agencies on Train Movements – Rail Industry / DOD
 - Close Law Enforcement Relationships
 - Primarily Incident Reporting
13. Intelligence Networks Established within the Railroad Industry
14. Industry Operations Center Established by the AAR
 - Operates the Rail Industry Alert Network
15. Increase in TSA Field Inspectors
16. Border and Port Enhanced Security and Screening of Freight – USCBP / TSA

* None in 2001



Security – ASLRRA (cont'd)

Industry Measures in Place Today: *

17. Transportation Worker Identification Credential (TWIC) Program in Place for Port Access Only – USCG
 - 1M (+) Active Credentials Issued to Date
 - \$132.50 Cost to Individual
18. Rail Security Departments Created for Each Railroad – DOT / FRA
19. Railroad Security Coordinators Required for Each Railroad – DOT / FRA
20. Railroad Employee Background Check and ID Card Initiatives – Rail Industry / FRA / TSA
21. U.S. DOT HazMat Routing Rule for TIH Carriers – Sept. 1, 2009 for all HM 232-E Commodities (TIH, Explosives, Radiological Materials) – PHMSA

* None in 2001

Compliance Expenditures



Near Term Short Line Legislative and Regulatory Compliance Expenditures

- **Positive Train Control:** \$14B – 20 Year Estimate
- **Hours of Service:** \$ – Hire More Personnel; Engage in 2 Year Pilot Study
- **Emergency Escape Breathing Apparatus (EEBA):** \$ – 3 Units Mounted in each Loco Cab Moving TIH / Explosives / Radiological?
- **Radio Narrow Banding:** \$ – 12.5 KH Radios for: New Base Stations, Locomotives, Vehicles, Mobile Radios, Antennas, etc.
- **Grade Crossing Inventories and Signage:** \$ – Inventory All Public / Private Crossings. New Signage on all Crossings
- **1 – 800 Call Centers** \$ – Contract for or Hire and Equip a Call Center
- **Bridge Inspections and Reporting:** \$ – Inventory, Inspection, Filing, Load Capacity Determination, Reporting, Design Documents
- **Conductor Certification:** \$ – Train Conductors to Standard
- **Locomotive Horn Testing and Recording:** \$ – Contract for Horn Testing



Near Term Short Line Legislative and Regulatory Compliance Expenditures

- **Medical Standards:** \$ – Yet to be Determined
- **Occupational Noise Standards and Requirements:** \$ – Hire Contractor to test, Record, Maintain Records
- **HazMat Risk Assessment Routing (TSA):** \$ – Evaluate Movement of TIH by Routing Tool, Report and Reroute
- **Security Training, Chain of Custody for TIH (TSA):** \$ – Training
- **New D&A Requirements:** \$ – Testing of All Personnel at Random
- **Training Standards:** \$ – Yet to be Determined
- **Annual Sperry Car Testing:** \$ – Contract for Sperry Car for Short Lines with Commuter / Passenger Service
- **Expedited Control of Locomotive Emissions:** \$ – Yet to be Determined
- **Risk Reduction Program:** \$ – Yet to be Determined

Positive Train Control



Impact on Small Railroads

Class III Railroads Must Equip with PTC If They:

- Operate on Class I Railroad Lines that Carry PIH Materials
- Operate on AMTRAK or Commuter Rail Lines, Including Freight Railroad Lines that Host Such Service
- Host Intercity or Commuter Rail Transportation
- Have At Grade Crossings Over Lines Required by RSIA08 to Have PTC

Short Line Exemptions:

- Short Lines can Operate on PTC Equipped Territory Up to and Beyond 20 Miles But Not More than 4X Day – Over 20 Mile They Have Until December 31, 2020
- Non PTC Loco can Cross PTC Equipped Territory at Diamonds But Requires Split Point Derails For Speeds Exceeding 40mph
- **2020 Requirements** – SL Operations Beyond 20 Miles Must Have PTC Equipped Locomotives
- Short Lines with Passenger and TIH Moves Have Other Considerations



Small Railroad Locomotive PTC Requirements

- FRA Estimates 55 Short Lines Will Be Required to Equip Locomotives with PTC
 - + Trackage Rights on Class I PIH Lines

- FRA also Estimates 10 Short Lines Have Trackage Rights on Intercity Passenger or Commuter Railroads or Other Freight Railroads Hosting Such Operations

- About 60 Will Need to Equip Locomotives
 - + FRA Estimates 4 Locos Per Small Railroad will Require PTC at \$55K each or \$220K – **(This estimate is wrong.)**
 - + Equipping All 60 Short Lines will Total \$13.2M
 - + Annual Maintenance Will Total \$1.98M
 - + Short Line Industry Front End Investment Approximately \$15M

* FRA Estimations



Total Costs to Short Lines*

- Equipping Locomotives: **\$13.2M** – (Too Low)
- Equip Diamond Crossings: **\$400K** (Class Is Must at Speeds Greater than 40mph)
- Annual Maintenance: **\$1.98M**
- Speed Restrictions at Diamonds: **\$219K**
- Diamond Maintenance: **\$60K**
- Maintain a Copy of PTC Implementation Plan: **\$1K**
- **Total Annual Cost to Short Line Railroads: \$2.26M**

* FRA Final Rule Decisions



The Challenges of PTC

- Interoperability – 7 Class Railroads; 10 Passenger Railroads Across North America
- Locomotive Fleet Age and Mix – 20 (+) Classes of Class I Locomotives
 - 50 Classes of Short Line Locomotives (Estimate)
 - Each Class of Locomotive Has a Different Configuration
 - Unit Costs for Short Line Locomotive PTC is Estimated at \$100K - \$150K
- Wayside Plant Age and Mix – Installation Tailored to Existing Plant
 - These Vary from Location to Location
 - Much of this is Very Old Equipment
- Equipping Switches in Unsignaled Territories – 10 Fold Increase in Signal Projects
 - Special Problems in Dark Territories
 - + Electricity Unavailable in Remote Locations
 - + Communications Systems and Equipment are Non-Existent in Many Areas



The Challenges of PTC (Cont'd)

- Scale of Changes and Increase in Workload
 - Development, Procurement, Installation, Testing, Other
 - Concurrent with All Other RSIA08 Requirements and New Federal Initiatives
- Compressed Timeline – Fully Effective 12/31/15
- Unproven Technology
 - PTC Technology Still in Development
 - Onboard and Office System Requirements are Still Being Refined
 - 220 MHZ Radio Not Specified
 - Wireless Interface Unit (WIU) Not Received from Suppliers
- Heavy Reliance on Suppliers – 4 Different Suppliers Will Provide Major Tech Components of PTC
 - + WABTEC
 - Onboard and Office
 - + Ansaldo STS
 - Next Generation Dispatching
 - + MeteorCom
 - 220 MHZ Radio
 - + ARINC
 - Back Office Development
 - Testing Strategy
 - **Supplier Management Will be Critical**



The Challenges of PTC (Cont'd)

- Training
 - Locomotive Engineer Operation and Testing
 - Maintenance, Machinist, and Electrician Tracks
 - Dispatchers
 - New Equipment Maintenance, Trouble Shooting and Testing
 - Wayside Systems and Equipment Maintenance and Testing
 - Records Maintenance, Filing, and Reporting

- Huge Capital Outlays
 - 12K Locomotives to be Equipped
 - XX Signals to be Upgraded / Modified
 - XX Switches to the Upgraded / Modified
 - Software, GIS, Systems Integration, Comms Development and Testing
 - Training and Education of Railroad Personnel
 - \$14B Over 20 Years (For \$500M Savings)

- These Costs Will Influence Capital Investments in Big and Small Railroads for Years into the Future



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The Voice of America's Independent Railroads