



U.S. Department  
of Transportation  
**Federal Railroad  
Administration**



# **Risk Reduction Program**

**Federal Railroad Administration**

**January, 2010**

**FRA Office of Safety**

**FRA Office of Research and Development**

# FEDERAL RAILROAD ADMINISTRATION Risk Reduction Program

- Overview
- Rail Safety Improvement Act
- RRP Pilot Programs
- FRA Support

# Overview: Definition

- RRP is an FRA-led initiative to reduce accidents and injuries, and to build strong safety cultures by:
  - Identifying individual and systemic contributing factors
  - Developing innovative methods, processes, and technologies
  - Using upstream predictive measures

# Overview:

## Basic Concepts of RRP

- Commitment from all stakeholders
- Systematic and objective data gathering, analysis, and reporting
- Problem solving and corrective action
- Long-term sustaining mechanisms

# Overview: Main Program Components

- Regulation (Rail Safety Improvement Act)
- Voluntary Pilot Programs

# Rail Safety Improvement Act (RSIA 2008)

Mandates - By 2012, all Class I and certain other carriers must:

- Develop a railroad safety risk reduction program that systematically evaluates and manages safety risks in order to reduce railroad accidents, incidents, injuries, and fatalities
- Submit its program plans to the Secretary for review and approval
- Implement the program plans approved by the Secretary

# PILOT PROGRAMS

*Description* Section 103 of the RSIA calls for:  
“(2) Reliance on Pilot Program – The Secretary may conduct behavior-based safety and other research, including pilot programs.”

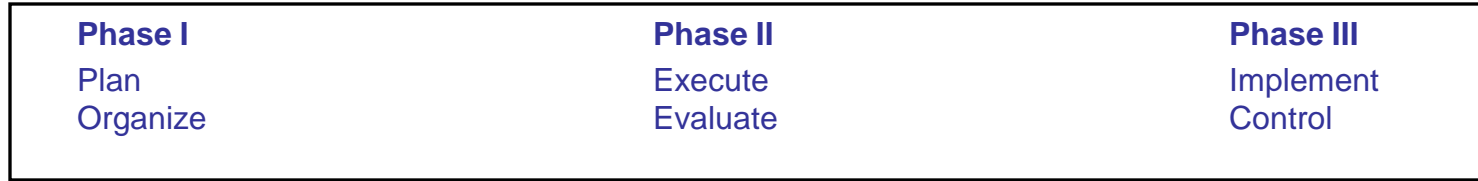
*Purpose* To encourage industry to collaborate.  
*(and)*  
To gather and disseminate information about the effective processes, technologies and systems nationwide to lower overall risk and improve safety.

# Pilot Program Lifecycle

Phase I	Phase II	Phase III
<b>Detailed Implementation Plan &amp; Master Schedule</b>	<b>Execute Implementation Plan</b>	<b>Evaluate Research</b>
<b>Letter of Commitment from Stakeholders</b>	<b>Research</b>	<b>Industry Outreach</b>
<b>Detailed Budget with Resources</b>		<b>Develop Rules &amp; Regulations</b>
<b>Industry Oversight Committee</b>		<b>Implement Program</b>
<b>Pilot Program Key Personnel &amp; Resumes</b>		
<b>Memorandum of Understanding (MOU) from FRA</b>		



# Risk Reduction Pilot Programs Long Term Plan



Continuous Improvement 

1 <sup>st</sup> Cycle 2009	2 <sup>nd</sup> Cycle 2010	3 <sup>rd</sup> Cycle 2011	4 <sup>th</sup> Cycle 2012	5 <sup>th</sup> Cycle 2013
<b>Phase I</b> Class 1s Projects	<b>Phase II</b> Class 1s Projects	<b>Phase III</b> Class 1s Projects		
	<b>Phase I</b> Short Line ABC RR Project	<b>Phase II</b> Short Line ABC RR Project	<b>Phase III</b> Short Lines ABC RR Project	
		<b>Phase I</b> Supplier X Project	<b>Phase II</b> Supplier X Project	<b>Phase III</b> Supplier X Project
			<b>Phase I</b> University Z Project	<b>Phase II</b> University Z Project

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# Pilot Projects 1<sup>st</sup> Cycle 2009

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*Amtrak (DC)* • Safety Culture Change  
• Reduce Grade Cross Fatalities  
• Cross-functional Risk Reduction

*Amtrak (PHL)* • Track Substructure Risk Mitigation & Reliability  
Improvement Project

*BNSF Railway Co.* • Behavioral Accident Prevention Process (PRIDE)

*Canadian Pacific* • Unattended Track Geometry Inspection

*CSX* • Continuous High Speed Rail Test

*Norfolk Southern* • Broken Rail Risk Reduction

*Union Pacific* • Fatigue Risk Management System

# PILOT PROGRAM 2<sup>nd</sup> Cycle 2010

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Projects may be new concepts or ongoing pilots from 2009  
This cycle of grants is open to a wide range of interested parties, including but not limited to:

- Class I Railroads
- Short Line and Regional Railroads
- Passenger Railroads
- Railroad Contractors
- Academic Institutions
- Manufacturers

# PILOT PROGRAM 2<sup>nd</sup> Cycle 2010 Selection Criteria

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- Greatest potential to reduce risk
- Likelihood of success
- Estimated time for reducing risk and accidents
- Estimated time to begin full-scale implementation
- Cost sharing contributions and partnerships with primary user groups

# FRA SUPPORT

## Meeting facilitation and implementation support

- Program planning and budgeting assistance
- Creating graphic representations of program plans and outcomes
- Evaluation planning and execution for Phase II in order to:
  - Monitor implementation
  - Capture lessons learned
  - Measure success
  - Assess feasibility of large-scale implementation

- **Questions?**

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