Federal Railroad Administration

Overview of Railroad Safety Information System (RSIS) for Association of State Rail Safety Managers Annual Meeting

September 2014
What is RSIS?

• RSIS is a critical data management system that supports railroad safety
  – RSIS is comprised of a series of databases used to house and manage various railroad inventory and safety related data
  – RSIS includes Federal and state inspector and railroad reporting processes and subsequent data validation, processing, and dissemination
  – RSIS collects and validates approximately 750,000 records annually
  – We are dependent on the information provided by your inspectors
Who uses RSIS?

Government Stakeholders
- FRA
- OMB
- Congress
- Other agencies
- State & local

Railroad Stakeholders
- Railroads
- Labor unions
- Manufacturers
- Associations

Public Stakeholders
- Researchers
- Communities
- General Public
- Press
- Attorneys
- Educators
What is RSIS used for?

<table>
<thead>
<tr>
<th>Safety Program Management</th>
<th>Budget Justification</th>
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<tr>
<td>• Development and prioritization including enforcement, outreach, research, and technology</td>
<td>• Justification of safety resources including staff and programs</td>
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<td>• Development of safety goals and performance assessment</td>
<td>• Long-term safety strategy</td>
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<td>• Dashboard</td>
<td>• Progress assessment</td>
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<td>• Management accountability</td>
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<tr>
<th>Rulemaking</th>
<th>Resource Planning</th>
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<td>• Prioritizing rules</td>
<td>• Resource allocation</td>
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<td>• Assessing overall risk, determining relevant accident pool, determining operational impact, cost-benefit analysis</td>
<td>• National Inspection Plan (NIP) development</td>
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<td>• Clearance process – OST, OMB, SBA</td>
<td>• Identify areas for focused Inspections</td>
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<td>• Voluntary Industry Standard development</td>
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<td>• Risk reduction rule – insufficient safety performance</td>
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<th>Grade Crossing / Trespass Management</th>
<th>Analysis</th>
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<td>• Quiet zone establishment and assessment</td>
<td>• Detection of emerging issues</td>
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<td>• Program evaluation including engineering, education, enforcement, and program effectiveness</td>
<td>• Trend analysis</td>
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<td>• Identify and target high-risk areas</td>
<td>• Community planning</td>
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<td>• Research and new technologies</td>
<td>• New regulation justification</td>
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RSIS is required for effective data-driven decision making throughout FRA mission areas
Railroad Accident Incident Reporting System (RAIRS)

- Railroad operational data
  - Total train miles, passenger miles, employee hours
- Railroad casualty database
  - Fatalities, injuries, occupational illnesses
  - Employees, contractors, passengers, trespassers, non-trespassers
- Reportable railroad accidents
  - Derailments, collisions, etc
  - Threshold: $10,500 in property damage (2014)
- Highway-Rail crossing accidents/incidents - ALL
  - Multiple records
  - Serves as FRA’s safety scorecard
RSIS Database Components

Grade Crossing Inventory System (GCIS)

- Inventory of the nation’s highway-rail crossings
- Crossing characteristics
- Historical information
- Accident history
- Railroad and state reporting
- GX32: free software for railroad and state use
- Risk formulas
- Historically voluntary reporting
- Rule to require submission every 3 years
Railroad Inspection Reporting System (RIRS)

- Railroad Inspection System for the Personal Computer (RISPC)
  - Secure Site
  - Inspection reports
  - Violation reports (railroad defects and violations)
- Serves as FRA’s compliance monitor for the industry
- Informs the National Inspection Plan
RSIS External Customers

- External customers use safety data extensively
  - FRA Office of Safety Analysis - Safetydata page has had over 8,200,000 hits in ~10 years
    - http://safetydata.fra.dot.gov/officeofsafety
  - Users also access information through Safety.Data.gov
  - “Quick Stats”
  - Graphs and charts depicting safety trends
  - Develop tailored queries
  - Download data files, file structures, and reporting forms
Railroad inspection data is for internal use only.

www.safetydata.fra.dot.gov/securesite requires ID and password.

Contains inspection data from Federal and state inspectors

Role-based access to various sections of data

Allows user to see Defects and Violations by Discipline, Region, timeframe.

Also hosts additional data

- Accident Investigation data (FARS)
- Activation Failure/False Proceed data
- RR Timetables for Class 1 railroads
What is RSIS All About?

- Ensuring railroad safety through data reporting and analysis
- Holding FRA managers accountable for results
- Sending railroads the message - accuracy and timeliness matters
- Measuring performance and focusing on improvement year after year
- Evaluating alternative safety initiatives objectively
- Increasing transparency of decisionmaking

RSIS Supports the overall management and mission of FRA
• 1910 Accident Reports Act: Congress requires railroads to report accidents and injuries to the Interstate Commerce Commission

• 1975: Railroad Accident Incident Reporting System. Railroads must submit reports monthly.

• 1978: FRA issues first Annual Railroad Safety Statistics Report (for 1975). SAS is used to conduct data analysis

• 1997: FRA issues rule requiring Internal Control Plans and recordkeeping for accidents below threshold and injuries

• 1998: Safety Data website
Change is coming!

- Use http://safetydata.fra.dot.gov for railroad provided information such as accidents, incidents, injuries, and operational data.
- Lots of reports have been modified, combined or deleted over past three months.
- This work will culminate in a new look before the end of November. Similar to FMCSA web design and layout.
- We always stand ready to provide ad hoc reports and answer your questions.
RSIS is intrinsic to all safety decisions

- Inspections
  - National Inspection Plan
  - Staffing Allocation Model
  - Dashboard
- Government Performance and Review Act
  - Setting safety goals
  - Measuring Performance
- Development and Enforcement of Safety Regulations