

Federal Railroad Administration

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

September 2014

What is RSIS?

Rail Safety Information System (RSIS) is the Federal Railroad Administration's (FRA) flagship information system

- 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

**Federal Railroad Administration
Office of Safety Analysis**

Home Crossing Forms/Publications Downloads Data Documents Policies Support

Last update: Thursday, December 10, 2009 10:05 AM

Home

Welcome to the newly redesigned FRA Office of Safety Analysis Web Site. This site was established for the purpose of providing information to railroad personnel, railroad companies, research and planning organizations and the public, in general.

Visitors have access to railroad safety information including accidents and incidents, inspections and highway-rail crossings, files, publications and forms, and view current statistical information on railroad safety.

[How to Page](#)
[TRAIN HORN RULE](#)
[** Click Here for Changes in Accident/Incident Recordkeeping and Reporting**](#)

[New mailing address for Railroad Accident/Incident Reporting](#)

1 - Overview

- 1.01 [Accident/Incident Overview](#)
- 1.02 [Operational Data Tables](#)
- 1.03 [Overview Charts By Railroad](#)
- 1.04 [Overview Charts By State](#)
- 1.05 [Accident/Incident Overview by State/Region](#)
- 1.06 [Ten Year Accident/Incident Overview by Railroad](#)
- 1.07 [Ten Year Accident/Incident Overview by Railroad/Region/State/County](#)

2 - Query Accident/Incident Trends

- 2.01 [Train Accidents](#)
- 2.02 [Train Accident Rates](#)
- 2.03 [Train Accidents by Railroad Groups](#)
- 2.04 [Employee on Duty Casualties](#)
- 2.05 [Employee on Duty Casualty Rates](#)
- 2.07 [Trespasser Casualties](#)
- 2.08 [Highway-Rail Crossings](#)

3 - Train Accidents

- 3.01 [Accident Trends - Summary Statistics](#)
- 3.02 [Accident Trends - Charts & Graphs](#)
- 3.03 [Download Accident Data](#)
- 3.04 [Railroad Safety Statistics Annual Report \(PDF\)](#)



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?

**RSIS is required
for effective data-
driven decision
making throughout
FRA mission areas**

Safety Program Management

- Development and prioritization including enforcement, outreach, research, and technology
- Development of safety goals and performance assessment
- Dashboard

Budget Justification

- Justification of safety resources including staff and programs
- Long-term safety strategy
- Progress assessment
- Management accountability

Rulemaking

- Prioritizing rules
- Assessing overall risk, determining relevant accident pool, determining operational impact, cost-benefit analysis
- Clearance process – OST, OMB, SBA
- Voluntary Industry Standard development
- Risk reduction rule – insufficient safety performance

Resource Planning

- Resource allocation
- National Inspection Plan (NIP) development
- Identify areas for focused Inspections

Grade Crossing / Trespass Management

- Quiet zone establishment and assessment
- Program evaluation including engineering, education, enforcement, and program effectiveness
- Identify and target high-risk areas
- Research and new technologies

Analysis

- Detection of emerging issues
- Trend analysis
- Community planning
- New regulation justification

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

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

- 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/secure/site 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?

RSIS Supports the overall management and mission of FRA

- ✓ 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

- 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