



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



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2012 ROW Fatality & Trespass Prevention Workshop

SUMMARY

Trespassing along railroad and transit rights-of-way (ROW) is the leading cause of rail-related deaths in America. Nationally, more than 550 trespass fatalities and nearly as many injuries occur each year. The vast majority of these incidents are preventable. In general, most trespassers are pedestrians who use railroad tracks as a shortcut.

Based on the success from the first ROW Fatality and Trespass Prevention Workshop held in 2008 [1], the U.S. Department of Transportation (U.S. DOT) Federal Railroad Administration (FRA) and Federal Transit Administration (FTA) sponsored another national workshop, August 14–16, 2012, in St. Louis, MO. The workshop offered a varied program by rail/transit experts and safety professionals who shared their ideas on key

issues, best practices, technical developments, human behavior, law enforcement, and public education and awareness outreach methods related to trespass prevention. The workshop allowed 175 attendees (representing Federal, State, and local governments, freight and passenger railroads, transit agencies, labor unions, academia, non-profit organizations, and consultants) to learn about and discuss advances, accomplishments, challenges, and approaches for ROW fatality and trespass prevention. The result was an open exchange of ideas, an opportunity to network with peers, a showcase of the newest and best safety-related developments, and discussion of future recommended actions. The workshop concluded with the development of a list of 23 high priority recommended actions across 6 topic areas.



Figure 1. 2012 ROW Fatality and Trespass Prevention Workshop Opening Session



BACKGROUND

In 2008, FRA and FTA sponsored the first ROW Fatality and Trespass Prevention Workshop [1]. This workshop was the first to bring together multiple rail stakeholders including transit, freight, and commuter rail to focus on common problems and solutions surrounding ROW fatality and trespass prevention, which has become a major risk mitigation area facing the rail community. Based on the success of the 2008 workshop, FRA and FTA sponsored a follow-on workshop, August 14–16, 2012, in St. Louis, MO.

OBJECTIVE

The purpose of the workshop was two-fold:

1. To provide FRA, FTA, and key stakeholders with a status update on current and future activities in the areas of ROW fatality and trespass prevention, and
2. To solicit the workshop attendees' ideas on prospective future action and research priorities.

These goals were achieved by bringing together subject matter experts to share information, collaborate, identify and prioritize specific recommended actions to facilitate the reduction of ROW trespass incidents and fatalities.

WORKSHOP STRUCTURE

To assist with the structure and direction of the workshop, a steering committee was nominated by FRA and FTA. This committee, made up of a diverse group of experts (representatives of various U.S. DOT agencies and their key partnering organizations, both public and private), would help address different perspectives of trespass prevention. The steering committee developed the technical agenda—including the identification of six topic areas and appropriate speakers—and actively participated in the execution of the workshop.

The workshop was kicked off with general welcome addresses by Metro St. Louis Chief Executive Officer John M. Nations and FTA Region VII Administrator Mokhtee Ahmad, and a keynote address by FRA Administrator Joseph C. Szabo. The welcome session was then followed by 23 technical presentations across the following 6 topic areas:

- Pedestrian Safety Issues
- Hazard Management
- Design, Technology, and Infrastructure
- Community Outreach
- Enforcement
- Intentional Deaths/Acts

The workshop concluded with the working groups, each composed of 20–30 attendees from across the spectrum of organizations participating at the workshop, sharing prioritized recommended actions for each topic area.

FINDINGS

The working groups developed over 80 ideas ranging from new or expanded initiatives, strategies, and programs, to new research projects. Each group was also tasked with identifying the top three to five recommended actions for their respective topic areas. This vetting process resulted in the identification of 23 high priority recommended actions. These are detailed by topic area below *as reported and described by the working groups*:

Pedestrian Safety Issues

1. *Data Collection and Analysis*: Lack of centralized data collection; limited access to data from partners and stakeholders; varied interpretation of data; inconsistent definition of incident types/data submission; different reporting criteria for different agencies; innovations not being systematically analyzed to determine effectiveness.

2. *Engineering Design for Pedestrian Safety*: Creating an engineering design manual that



provides Practical Cost Effective Engineering Design Solutions to enable railroads to mitigate pedestrian crossing hazards during preliminary design, but more importantly, before revenue service commences where new rail lines or operations exist.

3. Distracted Behavior—Pedestrians and Cyclists: Distractions such as electronic devices, clothing, reading material, consumption of alcohol/drugs, or food and beverage cause crossing users to be oblivious to the railroad environment. The distracted behavior results in potential hazards such as near misses, walking into trains, injuries, and fatalities.

4. Standardize Active/Passive Signage and Evaluate Effectiveness: A standard list of effective active and passive signage for transit, heavy rail, passenger service and freight, would be of benefit in our mobile society and would ensure that the traveling public receives the same message regardless of location.

Hazard Management

- 1. Safety Culture:** Elevate safety within organizational culture (incorporate safety into roles/responsibilities). Develop model training program on how to implement safety initiatives.
- 2. Data Collection:** Develop best practices (data quality, aggregate versus disaggregate data, near miss reporting, what technology is effective).
- 3. Hazard Management:** Develop common definition, interpretation, and application through a formal committee (Transit Rail Advisory Committee for Safety/Railroad Safety Advisory Committee).

Design, Technology, and Infrastructure

- 1. Fencing Design:** Establish robust standardized fencing design and engineering criteria to inform local decisionmaking.
- 2. Barriers Designed to Mitigate Pedestrian**

Distraction: Railroad preemption to lock the mechanism against entry upon train detection.

3. Exploratory Technology Research and Education: Incorporate existing technologies from other industries to rail ROW.

4. Train-activated In-pavement Warning Lights: Lights would activate as train approaches to provide additional warning to pedestrians.

Community Outreach

1. Public Awareness Campaign: Deliberate, sustained connections within communities. An overarching approach to prevent injury and death that can be customized for specific demographic, cultural, and regional audiences. A brand/slogan that is distinctive and memorable. Collaborative, proactive teaming of Federal and local government and industry stakeholders.

2. Community Outreach Partnerships: A national initiative to motivate stakeholders in communities to develop and implement trespassing reduction programs.

3. National Community Awareness Day: A railroad trespassing prevention awareness day.

4. Outreach and Awareness Toolkit: Communications resources to help address ongoing issues and provide a means to problem solve.

Enforcement

1. Railroad Police Authority: Seek full police authority, across all 50 states, for railroad police officers.

2. Broad Based Trespass Law: Railroad specific trespass law that can be applied broadly across the United States (consistent language)

3. Strategic Approach to Different Types of Trespassers: Focus on 'high value' targets (i.e.



trespassers with malicious intent, homeless, drug/alcohol (impaired) should be different than approach to the casual trespasser).

4. *Crucial Conversations within the Judicial System*: There is a need to have 'crucial conversations' with local courts/ prosecutors to encourage consistent enforcement of trespass laws for violators.

5. *Law Enforcement Grants for Trespass Enforcement/Abatement*: Seek opportunities to apply for and/or develop law enforcement grants that can target rail ROW trespass behavior.

Intentional Deaths/Acts

1. *Education*: How can message change behavior? How can we create a deterrent effect? How can we alter societal mindset regarding illegal trespassing?

2. *Eliminating Trigger Terminology from Public Communication*: What terminology can/should be used in media, presentations, Web sites, and technical reports? Develop guidelines for terms to share information without providing unintentional triggers.

3. *Exploration of Trespass Prevention Messaging*: Develop campaign/marketing to point out that not all strikes result in fatalities.

CONCLUSIONS

The goal of this workshop was to share existing industry leading practices and explore new strategies that the rail industry could pursue to reduce the number of ROW trespasser incidents and fatalities. The FRA and FTA anticipate that the results of this workshop will be used by U.S. DOT modal administrations and their stakeholders to enhance safety on the nation's rail transportation network.

REFERENCES

[1] Adduci et al. (2009 Feb.). *ROW Fatality and Trespass Reduction Workshop 2008 – Summary of Results* (Publication No. DOT/FRA/ORS-09/001). Washington, DC: FRA.

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