# Railroad Trespassing, Vandalism, and Highway-Rail Grade Crossing Warning Device Violation Prevention Strategies

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### The Mandate

Section 208 of the Federal Railroad Safety Improvement Act of 2008 (Pub. L. No. 110-432) reads as follows:

- (a) TRESPASSER PREVENTION AND HIGHWAY-RAIL GRADE CROSSING WARNING SIGN VIOLATIONS.—Section 20151 is amended—
- (1) by striking the section heading and inserting the following:
- "\\$ 20151. Railroad trespassing, vandalism, and highway-rail grade crossing warning sign violation prevention strategy";
- (2) by striking subsection (a) and inserting the following:
- "(a) EVALUATION OF EXISTING LAWS.—In consultation with affected parties, the Secretary of Transportation shall evaluate and review current local, State, and Federal laws regarding trespassing on railroad property, vandalism affecting railroad safety, and violations of highway-rail grade crossing signs, signals, markings, or other warning devices and develop model prevention strategies and enforcement laws to be used for the consideration of State and local legislatures and governmental entities. The first such evaluation and review shall be completed within 1 year after the date of enactment of the Rail Safety Improvement Act of 2008. The Secretary shall revise the model prevention strategies and enforcement codes periodically.";
- (3) by inserting "FOR TRESPASSING AND VANDALISM PREVENTION" in the subsection heading of subsection (b) after "OUTREACH PROGRAM";
- (4) in subsection (c)—
- (A) by redesignating paragraphs (1) and (2) as subparagraphs (A) and (B), respectively;
- (B) by inserting "(1)" after "MODEL LEGISLATION.—"; and
- (C) by adding at the end the following new paragraph:
- "(2) Not later than 18 months after the date of enactment of the Rail Safety Improvement Act of 2008, the Secretary, after consultation with State and local governments and railroad carriers, shall develop and make available to State and local governments model State legislation providing for civil or criminal penalties, or both, for violations of highway-rail grade crossing signs, signals, markings, or other warning devices."; and (5) by adding at the end the following new subsection:
- "(d) DEFINITION.—In this section, the term 'violation of highway-rail grade crossing signs, signals, markings, or other warning devices' includes any action by a motorist, unless directed by an authorized safety officer—
- "(1) to drive around a grade crossing gate in a position intended to block passage over railroad tracks;
- "(2) to drive through a flashing grade crossing signal;
- "(3) to drive through a grade crossing with passive warning signs without ensuring that the grade crossing could be safely crossed before any train arrived; and
- "(4) in the vicinity of a grade crossing, who creates a hazard of an accident involving injury or property damage at the grade crossing.".
- (b) CONFORMING AMENDMENT.—The chapter analysis for chapter 201 is amended by striking the item relating to section 20151 and inserting the following:
- "20151. Railroad trespassing, vandalism, and highway-rail grade crossing warning sign violation prevention strategy.".

(c) EDUCATIONAL OR AWARENESS PROGRAM ITEMS FOR DISTRIBUTION.—Section 20134(a) is amended by adding at the end the following:

"The Secretary may purchase items of nominal value and distribute them to the public without charge as part of an educational or awareness program to accomplish the purposes of this section and of any other sections of this title related to improving the safety of highway-rail crossings and to preventing trespass on railroad rights of way, and the Secretary shall prescribe guidelines for the administration of this authority."

### Introduction

Under the Rail Safety Improvement Act of 2008 (RSIA), the U.S. Department of Transportation (DOT) has developed model railroad trespassing, vandalism, and highway-rail grade crossing warning device violation prevention strategies to assist State and local governments, and railroads. DOT, through the Federal Railroad Administration (FRA), consulted with the Association of American Railroads and others to develop these strategies, which fall under three broad categories: 1) expanding educational outreach, 2) energizing enforcement, and 3) fostering engineering and sight improvements.

### Background on Trespassing on Railroad Property

Trespassing on a railroad's private property and along railroad rights-of-way is the leading cause of rail-related fatalities in America. Nationally, approximately 500 trespassing deaths occur each year, the vast majority of which are preventable. Since 1997, more people have been fatally injured each year by trespassing than in motor vehicle collisions with trains at highway-rail grade crossings.

By definition, trespassers are illegally on railroad property without permission. They are most often people who walk across or along railroad tracks as a shortcut to another destination. They also may be engaged in another activity such as loitering, hunting, bicycling, snowmobiling, or all-terrain vehicle riding.

The railroad operating environment is inherently a hazardous one. For that reason railroad employees receive extensive safety training. Trespassers do not have the benefit of this safety training, nor are they are aware of current and pending train movements. Many trespassers risk life-threatening injuries and loss of life by failing to properly use designated crossing locations such as highway-rail grade crossings and dedicated pedestrian crossings.

In the majority of States, trespassing is codified as a property crime and a general offense. A number of States specifically forbid trespassing on railroad property. A list of State-by-State trespassing laws is available at: www.fra.dot.gov/downloads/safety/cross\_chp9.pdf.

# Background on Highway-Rail Grade Crossing Warning Device Violations

Promoting safety at the Nation's approximately 262,111 highway-rail grade crossings, in order to prevent collisions between motor vehicles and trains, is a shared responsibility between motorists; railroads; and Federal, State, and local governments and safety agencies. Overall, train-vehicle collisions are the second leading cause of rail-related fatalities in the United States.

As the result of the cooperative efforts by many safety partners and stakeholders, the number of train-vehicle collisions at grade crossings has been reduced by 80 percent, from a high of 13,557 incidents in 1978 to 1,905 incidents in 2009, despite significant increases in both highway and

train traffic. Likewise, the number of persons killed as a result of grade crossing collisions has decreased by 70 percent, from a high of 1,115 in 1976 to 245 in 2009.

Highway-rail grade crossing warning devices, such as flashing lights or flashing lights with gates, do improve safety at grade crossings, but they do not prevent all collisions. Almost 60 percent of crossing collisions at public crossings in 2009 occurred where active warning devices were installed and operated as intended. And, nearly ¼ of all crossing collisions involve the motor vehicle striking the side of a train that is already occupying the crossing.

Of the approximately 262,111 grade crossings in the country, about 137,659 are at publicly owned roadways, while about 85,176 are located at privately owned roadways. There are also approximately 2,000 pathway (also known as pedestrian) crossings. Of the public grade crossings, about 48 percent are equipped with active warning devices.<sup>2</sup>

### Education, Enforcement, and Engineering

Efforts to improve grade crossing safety generally fall into one of three basic approaches, otherwise known as the three "Es" of crossing safety. Experience has shown that all three must be aggressively and simultaneously employed by a wide variety of safety partners to be truly effective in reducing crossing incidents and fatalities.

- **Education**: Motorists must learn how to be safe at grade crossings, as an estimated 94 percent of collisions and 87 percent of fatalities result from risky driver behavior or poor judgment. Public awareness programs help drivers to safely navigate grade crossings.
- **Enforcement**: Consistent enforcement of traffic safety laws by State or local police, and a sustained effort by the courts to impose penalties on violators, discourage and deter motorists from making poor decisions at grade crossings.
- **Engineering**: Engineering improvements (such as installing flashing lights and gates, adding traffic channelization that deters motorists from driving around lowered gates, or physically separating the highway from the tracks) greatly reduce or prevent the potential for train-vehicle collisions.

### Role of the Federal Railroad Administration

FRA is a modal administration within DOT. FRA was created by the Department of Transportation Act of 1966, 49 U.S.C. § 103. The purpose of FRA is to promulgate and enforce rail safety regulations, administer railroad assistance programs, conduct research and development to support improved railroad safety and national transportation policy, provide for the rehabilitation of the Northeast Corridor rail passenger service, and consolidate government support for rail transportation activities. Today, FRA is one of 10 agencies within DOT

<sup>2</sup> Source of data: http://safetydata.fra.dot.gov/officeofsafety.

<sup>&</sup>lt;sup>1</sup> Source of data: http://safetydata.fra.dot.gov/officeofsafety.

concerned with intermodal transportation. FRA comprises seven offices under the Administrator and Deputy Administrator.

FRA's areas of responsibility focus on passenger and freight transportation on the Nation's railroad network. Although FRA is involved in several aspects of railroad transportation, its primary mission is to promote safety in the railroad industry. To support this mission, FRA administers the Federal railroad safety laws, which provide FRA with authority over virtually every area of railroad safety.

The Office of Railroad Safety (RRS) is a vital part of the integrated agency. RRS promotes and regulates safety throughout the Nation's railroad industry. The Office of Chief Counsel plays a significant role in both regulatory and enforcement efforts by developing and drafting the agency's safety regulations, assessing civil penalties for violations of the rail safety statutes and regulations, and providing legal support for FRA's safety program. The Office of Railroad Policy and Development also plays a key role in developing and testing new technology to advance science and engineering, in order to improve the technology for railroad safety. The Office of Policy provides support, analysis, and recommendations on broad subjects relating to the railroad industry.

The FRA Highway-Rail Grade Crossing and Trespasser Prevention Division is tasked with initiating and supporting safety programs aimed at saving lives along our Nation's rights-of-way. The 9 headquarters staff and 18 regional managers assist communities in using the three Es of crossing safety: Education, Enforcement, and Engineering.

FRA partners with, and provides funding for, Operation Lifesaver, Inc. (OL), a nonprofit organization dedicated to highway-rail safety and anti-trespass initiatives. OL offers safety presentations to school children, professional drivers, emergency responders, and other people whose lives intersect with railroad traffic to inform them of the dangers present along railroad rights-of-way.

FRA has positions at three of its regional offices for part-time law enforcement officers to reach out to their fellow officers to promote stringent and dedicated enforcement of traffic and trespassing laws along rights-of-way.

FRA's staff also partners with communities to develop plans to make the best use of available resources to improve traffic routing, and enhance the presence of warning devices at crossings to prevent collisions at highway-rail grade crossings.

# Railroad Trespassing and Vandalism Prevention Strategies

FRA recommended these trespassing and vandalism prevention strategies in order to reduce the number of railroad-related trespassing and vandalism incidents:

### **Expand Educational Outreach**<sup>3</sup>

- Congress recognized the importance of expanding educational outreach by continuing its support of OL, an international, nonprofit, education, and awareness program dedicated to ending tragic collisions, fatalities, and injuries at highway-rail grade crossings and on railroad rights-of-way. In 2009, FRA awarded OL a \$1.015 million safety grant to raise awareness about the potential hazards at grade crossings and the dangers of illegal trespassing on rail property. RSIA also authorized an increase of the grant amount to \$2 million in fiscal years (FY) 2010 and 2011, and to \$1.5 million in FY 2012 and 2013. Communities are urged to include OL in their efforts to prevent trespassing. Each State has an OL program that is ready to provide educational courses that address the hazards of trespassing. Contact information for each State program is available at OL's Web site (www.oli.org).
- FRA is encouraging communities and States to implement pilot programs under OL's Railroad Safety Public Awareness Program. When funded, the programs will address the need for targeted and sustained community outreach and, in turn, highway-rail grade crossing safety and the prevention of railroad trespassing.
- FRA is also encouraging the development of community action plans that incorporate a problem-solving model designed to provide a step-by-step approach for addressing railroad trespassing and vandalism issues. One example of this is the Trespass Prevention Research Study; a safety demonstration program designed to identify and review mitigation laws/strategies, and analyze successful processes for the reduction in trespass incidents and fatalities to develop nationwide guidance.<sup>4</sup>

# **Energize Enforcement**<sup>5</sup>

- FRA has encouraged programs with law enforcement and the judicial branch to recognize trespass and vandalism violations as serious problems. Law enforcement agencies should be encouraged to enforce trespassing and vandalism laws more vigorously.
- Judges should be encouraged to adjudicate these cases in a way that more effectively discourages dangerous and illegal behavior. Upon a conviction of railroad trespassing, penalties should include attendance by the offender at an education course highlighting the dangers associated with trespassing along railroad rights-of-way.
- Prosecutors should encourage local police officers to partner with railroad police officers to help identify trespassers and vandals, and make arrests. Often times, police officers will find that these individuals are engaged in other illegal activity as well, such as gangrelated crime, drug dealing, and theft. Knowing that trespass and vandal cases will be prosecuted, police will be increasingly motivated to take the time to make these arrests. As a cooperative effort, prosecutors can help send a strong message that, in this modern

See U.S. Department of Transportation Highway-Rail Crossing Safety Action Plan Summary, May 2004.

<sup>&</sup>lt;sup>4</sup> For additional information visit: www.fra.dot.gov/Pages/press-releases/338.shtml.

<sup>&</sup>lt;sup>5</sup> See U.S. Department of Transportation Highway-Rail Crossing Safety Action Plan Summary, May 2004.

era of transportation, railroad property should be considered a danger zone, and not a safe haven for criminal activity.

- FRA, in consultation with the affected parties, has developed and made available to State
  and local governments model State legislation covering trespassing and vandalism
  (www.fra.dot.gov). States should adopt model laws set forth by FRA or strengthen
  existing railroad trespassing and vandalism laws to include increased penalties for
  multiple violations.
- The affected parties are encouraged to work with railroads to ensure that railroad property is clearly posted against entry. Signage should be clearly visible along railroad rights-of-way and in accordance with any State or local laws to aid in prosecutions and to notify the public that it is illegal to trespass.
- Increased partnerships should be encouraged between law enforcement, community groups, and railroads to identify, educate, and develop community action plans to aid with the education and enforcement of railroad trespassing.
- Railroads should be encouraged to adopt a "near hit" report to be used by train crews to report trespassing activity. These reports should be shared with railroad police or local law enforcement agencies so that enforcement efforts can be targeted to locations where trespassing frequently occurs.

### **Foster Engineering and Sight Improvements**

- Local and State governments should adopt policies to aid in the prosecution of individuals identified, through the use of technology, to be trespassing or committing acts of vandalism on railroad rights-of-way. As an example, off-the-shelf technology using motion sensors, video cameras, and infrared lighting was used in Pittsford, NY, to deter trespassing on a rail bridge over the Erie Canal.<sup>6</sup>
- Overgrown vegetation along railroad rights-of-way should be reduced, particularly in areas frequently used by trespassers and vandals. This could eliminate potential blind spots or locations that will attract trespassers. Partnerships between railroads and private property owners should be forged and strengthened to eliminate vegetation, sight obstructions, and attractions.
- Communities should develop and implement plans to accommodate forecasted growth close to the railroad's property. The development plans should include provisions to eliminate or mitigate trespassing issues.
- To encourage people to stay off railroad rights-of-way, proper signage and sidewalks should be provided with pedestrian grade separations. Additionally, channelization devices should be provided directing trespassers to areas of safe passage.

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<sup>&</sup>lt;sup>6</sup> Full Report on this effort: www.fra.dot.gov/downloads/Research/ord0603.pdf.

States and localities should endeavor to secure areas (e.g., with fencing) or enhance areas (e.g., cleanup and remove vegetation) where trespassing may be prevalent. Fencing should be tamper-resistant and provide a high level of security.

# Highway-Rail Grade Crossing Warning Device Violation Prevention Strategies

FRA recommended these highway-rail grade crossing warning violation device prevention strategies in order to reduce the number of highway-rail grade crossing incidents:

## **Expand Educational Outreach**<sup>7</sup>

- Congress recognized the importance of expanding educational outreach by continuing its support of OL, an international, nonprofit, education, and awareness program dedicated to ending tragic collisions, fatalities, and injuries at highway-rail grade crossings and on railroad rights-of-way. In 2009, FRA awarded OL a \$1.015 million safety grant to raise awareness about the potential hazards at grade crossings and the dangers of illegal trespassing on rail property. RSIA also authorized an increase of the grant amount to \$2 million in FY 2010 and 2011, and to \$1.5 million in FY 2012 and 2013. Communities are urged to include OL in its efforts to prevent violations of highway-rail grade crossing signs and warning devices. Each State has an OL program that is ready to provide educational courses that address crossing safety. Contact information for each State program is available at OL's Web site (www.oli.org).
- FRA is encouraging communities and States to implement pilot programs under OL's Railroad Safety Public Awareness Program. When funded, it will address the need for targeted and sustained community outreach and, in turn, highway-rail grade crossing safety or the prevention of railroad trespassing.
- FRA is also encouraging the development of community action plans that incorporate a problem-solving model designed to provide a step-by-step approach for addressing crossing safety issues.

# **Energize Enforcement**<sup>8</sup>

• FRA will continue to expand successful programs with law enforcement agencies and the

judicial branch to recognize highway-rail grade crossing warning device violations as a serious problem. Law enforcement agencies should be encouraged to enforce highwayrail grade crossing laws more vigorously.

Judges should be encouraged to adjudicate these cases in a way that effectively discourages dangerous and illegal behavior. Upon a conviction of a highway-rail grade crossing warning device violation, penalties should include attendance, by the offender, at an education course highlighting the dangers associated with failure to obey a highway

<sup>8</sup> See U.S. Department of Transportation Highway-Rail Crossing Safety Action Plan Summary, May 2004.

<sup>&</sup>lt;sup>7</sup> See U.S. Department of Transportation Highway-Rail Crossing Safety Action Plan Summary, May 2004.

traffic control device, such as a crossbuck or other passive or active grade crossing warning systems.

• FRA, in consultation with the affected parties, has developed and made available to State and local governments model State legislation covering highway-rail grade crossing warning device violations (www.fra.dot.gov). States should adopt model laws set forth by FRA, or strengthen existing highway-rail grade crossing laws, to include increased penalties for multiple violations.

### **Foster Engineering and Sight Improvements**

- The emergence of new technologies presents opportunities for more effective and affordable warnings, and safer passage of highway users and trains at highway-rail grade crossings. Development and implementation of new highway-rail grade crossing warning device technologies will require extensive cooperation between authorities and railroad carriers, and every effort should be made to foster a positive working relationship.
- Overgrown vegetation at highway-rail grade crossings must be reduced to increase the
  visibility of both the motorist and the train crews. Partnerships between railroads and
  private property owners must be forged and strengthened to eliminate vegetation, sight
  obstructions, and attractions. States should adopt model laws set forth by FRA to
  strengthen existing laws, and follow the design standards on sight distances at grade
  crossings issued by the American Association of State Highway and Transportation
  Officials and FHWA in "A Policy on Geometric Design of Highways and Streets."
- There are standards and guidelines developed by FRA and FHWA to provide policy and technical guidance for State and local governments, grade crossing designers, and railroad officials in making general safety improvements at grade crossings. Every effort should be made to comply with the guidelines outlined in *The Compilation of Pedestrian* Safety Devices in Use at Grade Crossings<sup>9</sup> and the standards provided in the Manual on Uniform Traffic Control Devices for the design and installation of pedestrian safety devices. These two documents provide the current state of the practice and standards for pedestrian accommodations at grade crossings, including pedestrian-only crossings, with examples of signs, signals, pavement markings, and other treatments. In addition, there are safety devices that can be used to reduce violations of grade crossing warning devices, such as traffic channelization, four-quadrant gates, long-arm gates, raised medians, and video surveillance. The FHWA highway-rail grade crossing safety improvement program provides funding for the design and installation of these devices, and the FRA document, The Use of Traffic Channelization Devices at Highway-Rail Grade Crossings<sup>10</sup>, provides guidance on the types of traffic-separating devices designed to keep motor vehicles in their lanes and prevent them from driving around lowered crossing gates.

<sup>10</sup> The publication can be located at: www.fra.dot.gov/downloads/Research/RR1003.pdf

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<sup>&</sup>lt;sup>9</sup> The publication can be located at: www.fra.dot.gov/downloads/safety/small Jan08 Ped Devices GX2.pdf

FRA will make available members of its Highway-Rail Grade Crossing and Trespasser Prevention Division to assist in planning and implementing these strategies. Members of the team are located throughout the United States. Included in the table in the Appendix is a list of FRA's regional offices and contact numbers. Additional information can be found at www.fra.dot.gov.

# Appendix A FRA Regional Offices

Region 1				
55 Broadway, Room 1077	The headquarters is located in Cambridge, Massachusetts, and governs the following States:			
Cambridge, MA 02142 Phone: (617) 494-2302 Fax: (617) 494-2967 Hot Line: (800) 724-5991	Connecticut Maine Massachusetts New Hampshire	New Jersey New York Rhode Island Vermont		
Region 2				
Baldwin Tower, Suite 660 1510 Chester Pike	The headquarters is located near I Crum Lynne, Pennsylvania, and g	-		
Crum Lynne, PA 19022 Phone: (610) 521-8200 Fax: (610) 521-8225 Hot Line: (800) 724-5992	Delaware Washington, D.C. Maryland New Jersey from Camden south	Ohio Pennsylvania Virginia West Virginia		
Region 3				
The headquarters is located in Atlanta, Georgia, and governs the following States:				
Atlanta, GA 30303 Phone: (404) 562-3800 Fax: (404) 562-3830 Hot Line: (800) 724-5993	Alabama Florida Georgia Kentucky	Mississippi North Carolina South Carolina Tennessee		
Region 4				
200 West Adams Street Chicago, IL 60606	The headquarters is located in Chicago, Illinois, and governs the following States:			
Phone: (312) 353-6203 Fax: (312) 886-9634 Hot Line: (800) 724-5040	Illinois Indiana Michigan	Minnesota Wisconsin		
Region 5				
4100 International Plaza, Suite 450 Fort Worth, TX 76109	' and corrowed the fellowing Ctatage			
Phone: (817) 862-2200 Fax: (817) 862-2204 Hot Line: (800) 724-5995	Arkansas Louisiana New Mexico	Oklahoma Texas		

Region 6				
901 Locust Street, Suite 464 Kansas City, MO 64106	-	The headquarters is located in Kansas City, Missouri, and governs the following States:		
Phone: (816) 329-3840 Fax: (816) 329-3867 Hot Line: (800) 724-5996	Colorado Iowa Kansas	Missouri Nebraska		
Region 7				
801 I Street, Suite 466 Sacramento, CA 95814 Phone: (916) 498-6540 Fax: (916) 498-6546 Hot Line: (800) 724-5997	The headquarters is loca and governs the followin  Arizona  California	nted in Sacramento, California, ag States:  Nevada Utah		
Region 8				
The headquarters is located in Vancouver, V and governs the following States:		, ,		
Vancouver, WA 98660 Phone: (360) 696-7536 Fax: (360) 696-7548 Hot Line: (800) 724-5998	Alaska Idaho Montana North Dakota	South Dakota Oregon Washington Wyoming		