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Transportation

**Federal Railroad
Administration**

Rail Safety Training Course for Law Enforcement

Office of Research
Development,
and Technology
Washington, DC 20590



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METRIC/ENGLISH CONVERSION FACTORS

ENGLISH TO METRIC

LENGTH (APPROXIMATE)

1 inch (in)	=	2.5 centimeters (cm)
1 foot (ft)	=	30 centimeters (cm)
1 yard (yd)	=	0.9 meter (m)
1 mile (mi)	=	1.6 kilometers (km)

AREA (APPROXIMATE)

1 square inch (sq in, in ²)	=	6.5 square centimeters (cm ²)
1 square foot (sq ft, ft ²)	=	0.09 square meter (m ²)
1 square yard (sq yd, yd ²)	=	0.8 square meter (m ²)
1 square mile (sq mi, mi ²)	=	2.6 square kilometers (km ²)
1 acre = 0.4 hectare (ha)	=	4,000 square meters (m ²)

MASS - WEIGHT (APPROXIMATE)

1 ounce (oz)	=	28 grams (gm)
1 pound (lb)	=	0.45 kilogram (kg)
1 short ton = 2,000 pounds (lb)	=	0.9 tonne (t)

VOLUME (APPROXIMATE)

1 teaspoon (tsp)	=	5 milliliters (ml)
1 tablespoon (tbsp)	=	15 milliliters (ml)
1 fluid ounce (fl oz)	=	30 milliliters (ml)
1 cup (c)	=	0.24 liter (l)
1 pint (pt)	=	0.47 liter (l)
1 quart (qt)	=	0.96 liter (l)
1 gallon (gal)	=	3.8 liters (l)
1 cubic foot (cu ft, ft ³)	=	0.03 cubic meter (m ³)
1 cubic yard (cu yd, yd ³)	=	0.76 cubic meter (m ³)

TEMPERATURE (EXACT)

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METRIC TO ENGLISH

LENGTH (APPROXIMATE)

1 millimeter (mm)	=	0.04 inch (in)
1 centimeter (cm)	=	0.4 inch (in)
1 meter (m)	=	3.3 feet (ft)
1 meter (m)	=	1.1 yards (yd)
1 kilometer (km)	=	0.6 mile (mi)

AREA (APPROXIMATE)

1 square centimeter (cm ²)	=	0.16 square inch (sq in, in ²)
1 square meter (m ²)	=	1.2 square yards (sq yd, yd ²)
1 square kilometer (km ²)	=	0.4 square mile (sq mi, mi ²)
10,000 square meters (m ²)	=	1 hectare (ha) = 2.5 acres

MASS - WEIGHT (APPROXIMATE)

1 gram (gm)	=	0.036 ounce (oz)
1 kilogram (kg)	=	2.2 pounds (lb)
1 tonne (t)	=	1,000 kilograms (kg)
	=	1.1 short tons

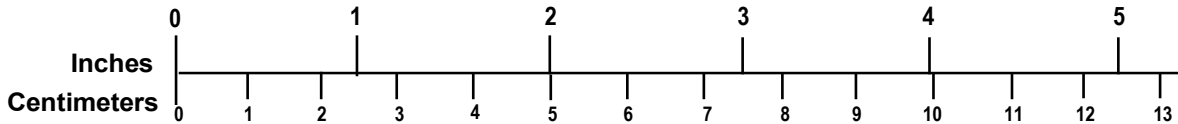
VOLUME (APPROXIMATE)

1 milliliter (ml)	=	0.03 fluid ounce (fl oz)
1 liter (l)	=	2.1 pints (pt)
1 liter (l)	=	1.06 quarts (qt)
1 liter (l)	=	0.26 gallon (gal)
1 cubic meter (m ³)	=	36 cubic feet (cu ft, ft ³)
1 cubic meter (m ³)	=	1.3 cubic yards (cu yd, yd ³)

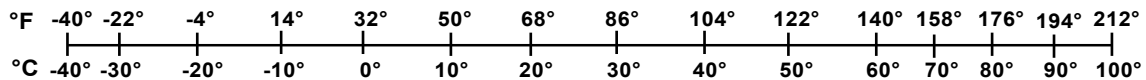
TEMPERATURE (EXACT)

$$[(9/5) y + 32] \text{ } ^\circ\text{C} = x \text{ } ^\circ\text{F}$$

QUICK INCH - CENTIMETER LENGTH CONVERSION



QUICK FAHRENHEIT - CELSIUS TEMPERATURE CONVERSION



For more exact and or other conversion factors, see NIST Miscellaneous Publication 286, Units of Weights and Measures. Price \$2.50 SD Catalog No. C13 10286

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Executive Summary

The Rail Safety Training Course for Law Enforcement (RSLET) project builds upon QinetiQ North America's (QNA) previous experience in developing first responder training. Specifically, QNA developed a video sponsored by the FRA's Office of Research, Development and Technology titled the *Locomotive Emergency Response Training* (LERT). The 30-minute video educates emergency responders with basic information regarding freight rail operations and locomotives so responders will have sufficient knowledge to safely deal with emergency situations.

Prior research by the U.S. Department of Transportation has found that 94 percent of trespassing incidents can be ascribed to risky behavior by motorists, cyclists, pedestrians and individuals on recreational vehicles such as ATVs. Law enforcement officers are an important first line of defense in curtailing and preventing trespassing and grade crossing infractions. Proper law enforcement can deter risky behavior and it is vital that law enforcement officers receive proper training pertaining to the importance of enforcing trespassing and grade crossing laws. Additionally, when trespassing or grade crossing incidents do occur, law enforcement officers are often the first responders on scene. It is critical that these responding law enforcement officers are familiar with both railroad operations and grade crossing conditions to ensure the safety of themselves and the general public.

Proper training will help alleviate issues, and is critical when dealing with the often times unfamiliar situation of rail accidents. Unfortunately, law enforcement are not always provided with the proper training to effectively manage the many unique hazards and challenges present at a rail accident. To help provide this education, FRA funded an effort to develop RSLET, an online video containing pertinent safety and general rail information to law enforcement. The core of RSLET is twofold: encourage greater enforcement of trespassing and grade crossing laws; and increase awareness of safety hazards and conditions when responding to railroad incidents. The program aims to significantly deter violations and increase public safety around tracks and trains by providing readily available information online.

1. Introduction

The Rail Safety Training Course for Law Enforcement (RSLET) project builds upon QinetiQ North America's (QNA) previous experience in developing first responder training. Specifically, QNA developed a video sponsored by the FRA's Office of Research and Development titled the *Locomotive Emergency Response Training* (LERT). Another 30-minute video, entitled *Locomotive Emergency Response Operations* educates emergency responders with basic information regarding freight rail operations and locomotives so responders will have sufficient knowledge to safely deal with emergency situations. LERT is a 3-hour classroom training that expands on this mission to include more detailed information on freight rail operations, locomotive rescue operations, and safety hazards present at an incident site.

During the development of LERT, first responders and high-level emergency officials offered comments detailing the need to educate emergency dispatchers on handling rail emergencies. Emergency dispatchers are the "front-line officers" who interface directly between railroads and responding emergency units. They ascertain the type and level of response required, identify the response location, and perhaps most importantly, communicate with the railroads on behalf of the first responders.

Given the hectic and turbulent nature of emergencies, there is a plethora of opportunities for errors to occur, especially since most emergency dispatchers likely have no familiarity with rail operations or terminology. For example, QNA discovered that many emergency personnel did not know that parallel rail tracks can be owned or operated by multiple railroads. In this scenario, an emergency dispatcher would need to know that he or she must contact and inform all the relevant railroads to ensure proper track shutdown. As such, proper training and familiarization with railroads is essential to equip emergency dispatchers with the tools and knowledge required to respond to a locomotive accident effectively and safely. The purpose of this project was to develop an online training video, easily accessible to all law enforcement providing critical information on rail safety rules and practices around grade crossings.

1.1 Background

Trespassers are defined as individuals who either intrude or encroach on to the railroad right-of-way without authorization. Grade crossing infractions are another form of trespassing that frequently occurs. In the U.S., a person or vehicle is hit by a train approximately every 3 hours.

Prior research by the U.S. Department of Transportation (DOT) has found that 94 percent of trespassing incidents can be ascribed to risky behavior by motorists, cyclists, pedestrians, and individuals on recreational vehicles such as ATVs. Law enforcement officers are an important first line of defense in curtailing and preventing trespassing and grade crossing infractions. Proper law enforcement can deter risky behavior and it is vital that law enforcement officers receive proper training pertaining to the importance of enforcing trespassing and grade crossing laws.

Law enforcement officers are typically the first emergency responders to reach the scene of an accident at a grade crossing. As such, it falls on them to ensure the safety of victims, the general public, and themselves. Unfortunately, most law enforcement officers are not provided with the proper training to contend with the many unique hazards and challenges present at a rail accident. Additionally, law enforcement officers can sometimes be unaware of all relevant laws regarding rail crossing safety and railroad trespassing prevention. For example, many are

unaware that more people are killed while trespassing on railroad property than die in grade crossing collisions. Law enforcement officers often believe that violations occur only when someone is crossing the tracks when the crossing signals are activated.

To help provide this education, Operation Lifesaver, Inc. (OLI) offers the Grade Crossing Collision Investigation (GCCCI) program. The program is conducted through a nationwide network of volunteers, mostly railroad employees who train law enforcement agencies in their territories. GCCCI trains law enforcement officers on the importance of enforcing grade crossing safety and trespassing laws. It also focuses on methods to investigate grade crossing collisions. While this is important, investigation is not the primary mandate of FRA or OLI. To shift the training emphasis from investigation to safety, FRA would like to replace the GCCCI program.

FRA funded this effort to develop RSLET, which will eventually replace the Operation Lifesaver GCCCI program. The core of RSLET will be twofold: encourage greater enforcement of trespassing and grade crossing laws, and increase awareness of safety hazards and conditions when responding to railroad incidents. The RSLET video aims to significantly deter violations and increase public safety around tracks and trains. The video will cover all relevant procedures and practices as identified by both railroad experts and emergency officials.

To identify the content of the training structure, QNA will follow a similar training development path as was used for LERT (Figure 1). The development of the LERT training program consisted of the following major steps:

- (1) Develop a database of knowledge pertaining to locomotive technical details, rail operations, and the associated challenges of rescue operations associated with locomotive emergency response.
- (2) Identify the learning goals of the training, i.e. the skills and knowledge to be imparted to the first responders.
- (3) Identify the format and layout of the training.
- (4) Develop the actual training.
- (5) Pilot the training with fire departments to obtain feedback on the comprehensiveness and delivery of the training. A similar approach will be utilized for RSLET and is outlined in the work plan section of this report.

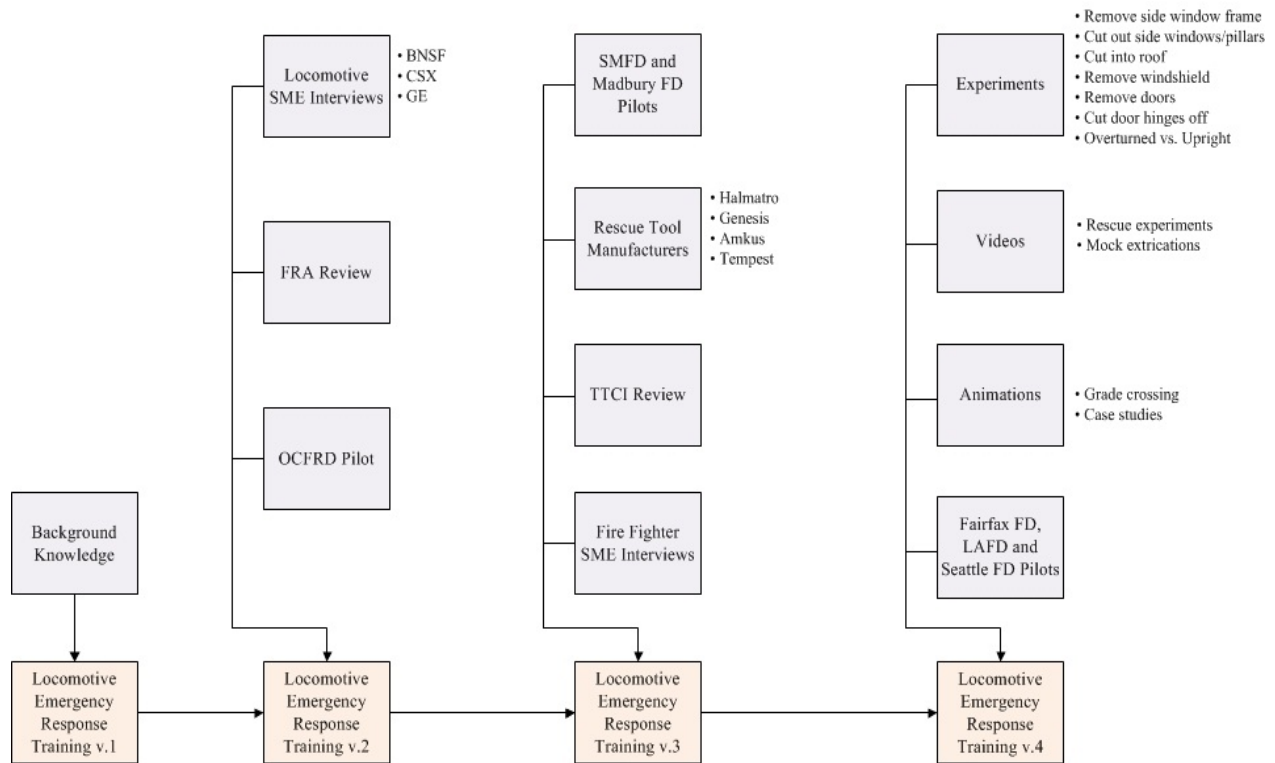


Figure 1: LERT Training Development Path

1.2 Objectives

The objectives of RSLET are listed below:

1. Define the training objectives and develop a training outline.
2. Develop training course for law enforcement.
3. Pilot the training program with law enforcement to gather stakeholder feedback.

1.3 Overall Approach

The first step in the project was to define the learning objectives of the training. These learning objectives articulated the knowledge and skills the audience needed to acquire by the end of the video. With input from stakeholders, the team developed an informational video to provide valuable information to law enforcement when responding to a call involving a railroad.

1.4 Scope

The scope of this project includes the development of a short informational video to be used in conjunction with other methods of training for law enforcement when responding to railroad emergencies.

1.5 Organization of the Report

[Section 2](#) of this report defines the learning objectives for RSLET through a detailed review of accident investigation reports on this topic. This review in turn informs the design of the survey

so as to gain a more in-depth understanding of the learning objectives necessary to deliver a quality training program for law enforcement. Thus, survey design and a discussion of the survey results are covered in this section as well. Finally, included in this section is the design of storyboards.

[Section 3](#) includes the actual design of the training course for RSLET. Building on the storyboards described in the previous section, Section 3 details both the script used in the video for the training programs as well as the design of the video itself.

[Section 4](#) discusses the pilot course of RSLET and details both a pre and post-assessment of the course.

[Section 5](#) contains the conclusion to this project.

[Section 6](#) is a list of references used in reviewing the accident reports at the outset of the design of RSLET.

The [Appendices](#) include the following documents:

- Survey Questions
- Survey Results
- Learning Objectives
- Storyboards
- Final Script

2. Define Learning Objectives and Training Outline

The first step in the project was to define the learning objectives of the training. Knowledge-based objectives define what the students should know and understand by the time the course is completed. Skill-based objectives detail what actions/operations the students learn to execute. For example, a knowledge-based learning objective is law enforcement's ability to describe the proper procedure to initiate a rail traffic stoppage. An skill-based learning objective is law enforcement's ability to learn how to communicate with railroad officials.

To establish the learning objectives, the QNA team first reviewed National Transportation Safety Board (NTSB) and FRA accident investigation reports to determine the dynamics of incidents and the associated challenges encountered during responses.

2.1 Review of Accident Investigation Reports

A review of accident investigation reports was conducted to best define the learning objectives for law enforcement. This review resulted in the collection of valuable information about rail emergency incidents, including how emergency responders reacted in the past when receiving a railroad emergency call. This investigation looks at responders actions and identifies potential areas of improvement. For this review, QNA considered emergency responders as police officers, firefighters, and emergency dispatchers.

2.1.1 Police Training

Many types of emergency response trainings are available and are used by different responders throughout the country. CSX, a large Class I railroad, provides emergency responder training and education online that is targeted directly toward rail emergencies (CSX, 2015). The Federal Emergency Management Agency (FEMA) also provides emergency response training that is more generalized in nature (FEMA, 2015.) What is important in this investigation is determining where existing trainings excel and where they fall short for specific emergency responders.

For police, training often is general enough that specific incidents, such as those related to rail accidents, may not be covered in great detail. Online training for police is available at places like policetraining.net and PoliceOne.com; however, most officer education and training comes from State- and federally mandated training programs. Police academy recruits undergo both practical and classroom instructional components. Learning State laws, patrol procedures, firearms training, traffic control, self-defense and other skills all go into making a police officer. Field exercises and physical training also play a part (Education Portal, 2015c).

Nearly 2,100 vehicle-train accidents occurred in 2013, with 251 of these resulting in fatalities (OLI, 2015). Additionally distressing is the tragic issue of trespassing. According to FRA statistics, 476 pedestrian rail trespass fatalities occurred in 2013 (OLI, 2013). Also note that in 2014 alone, 884 trespassing incidents were recorded (Safetydata, 2015). It is a pervasive issue that police and other emergency responders should be prepared to safely and effectively handle. Improper driving around train tracks and train derailment issues are preventable on different levels, and officers can learn how to foster a safer environment on the railroad by receiving proper training on rail-related incidents.

2.1.2 Police Incidents

An examination of different experiences police may encounter helps illustrate the type of training needed for safe rail emergency response and prevention. Poorly maintained track and equipment can lead to devastating incidents. Prevention and foreknowledge can reduce incidents and make response to incidents more effective. Although officers cannot enforce the maintenance of railroad track or cars, they can monitor the maintenance of grade crossings. Furthermore, understanding common ways in which trains can fail or degrade will allow all emergency responders to be better equipped to deal with emergency incidents safely and effectively. In this first incident, a grain train operating on a main track derailed. Near Casselton, North Dakota, an eastbound BNSF crude oil unit train collided with the derailed car that was fouling the main track. Following the collision, the two crewmembers on board the oil unit train fled the lead locomotive uninjured before the ruptured tank cars ignited (NTSB, 2013b). A similar incident occurred in Quantico, Virginia at a switch point which was neither replaced nor protected adequately by a speed restriction (NTSB, 2006b). Another incident, this time occurring in Washington, occurred due to an improperly maintained track (NTSB, 2006). As also evident in an accident in Port Hudson, Louisiana, having properly maintained grade crossing signals can make the difference between life and death. In this incident, “a log truck driver and the driver and front passenger of the automobile said that the lights for southbound traffic had not been flashing as they approached the crossing” (NTSB, 2000). This resulted in an incident with one fatality and eight injuries. These incidents illustrate the many ways in which poorly maintained track or grade crossing signals can lead to fatalities, injuries, or at the very least, highly dangerous scenarios that could have been prevented with proper training.

In 1997, according to the Centers for Disease Control and Prevention (CDC), railroad trespassing became the number one cause of railroad-related deaths in the United States (CDC, 1999). Toxicology reports from this CDC study showed 55 percent of trespassers tested positive for alcohol consumption, while others tested positive for drugs. Additionally, although “many trespasser injuries are reported by railroads as unintentional by definition, the county medical examiner classified nine of the trespasser deaths as suicides and one as a homicide.”

Conventional training for police officers may not be sufficient in preventing rail emergencies. A police education focus on the function of trains and grade crossings, as well as an awareness of different types of scene dangers, allows officers to prevent and respond in the safest and most effective manner.

2.2 Survey

To gather more information regarding the current gaps in training, the research team obtained third-party data. Survey questions are included in [Appendix A](#). The data comprised of 262 law enforcement officials across the U.S. [Figure 2](#) shows the percentage of responders from each state. Twenty-four percent of this sample did not include sufficient information to determine their location. Data and results obtained from this survey helped define the team’s learning objectives for this informational video.

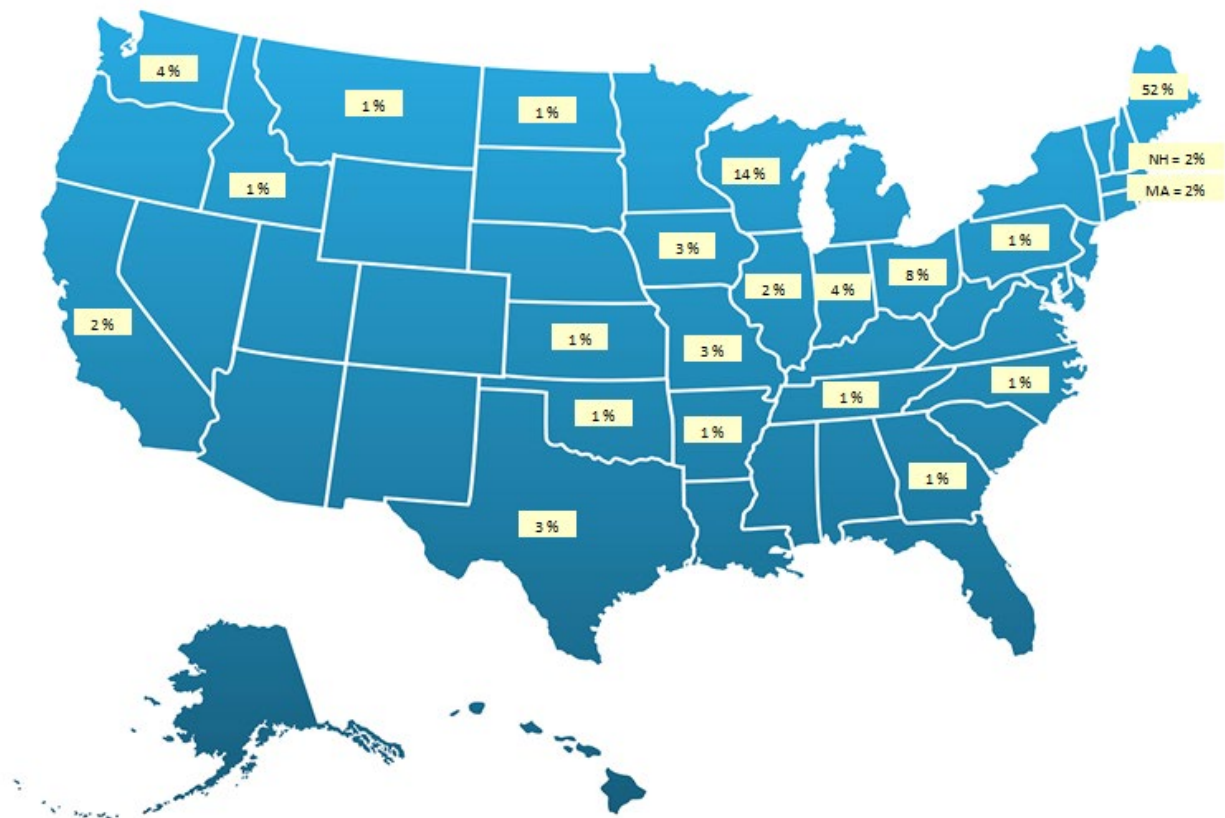


Figure 2: Percentage of Responders in Each State that Participated in the Survey

A vast majority (81.6 percent) of this sample had worked as a law enforcement official for over 10 years. The survey contained questions regarding experience and knowledge of railroad emergencies. The results obtained from this population are presented below and in [Appendix B](#). Fifty-four percent of these officers reported experience with responding to a railroad emergency during their career. When questioned about the circumstances surrounding the call, the respondents provided the information located in [Figure 3](#).

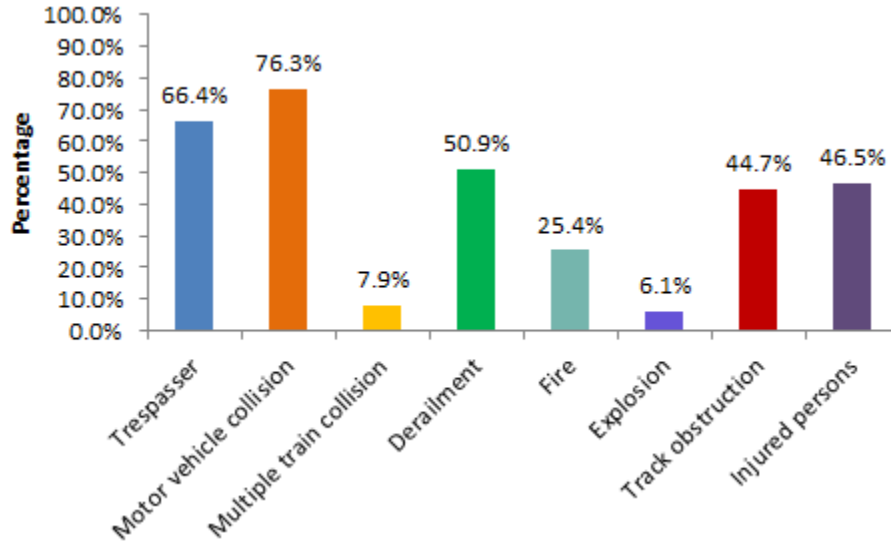


Figure 3: Circumstances of Railroad Emergencies

In addition to selecting the options given, dispatchers could write in circumstances not included in the list. Fifteen participants chose to write in a response. Responses included theft, assault and battery, arson, suicide, possible leaking tank car, malfunctioning gates, gates struck by vehicle, pedestrian struck by train, person fishing from track, and bridge struck by over-height vehicle.

2.2.1 Training

A majority of the respondents received the most training from formal classroom instruction and while on the job. Others indicated completing online courses and watching videos. Interestingly, 30 percent of this sample received no training in regards to railroad incidents. See Figure 4 for the spread of training received.

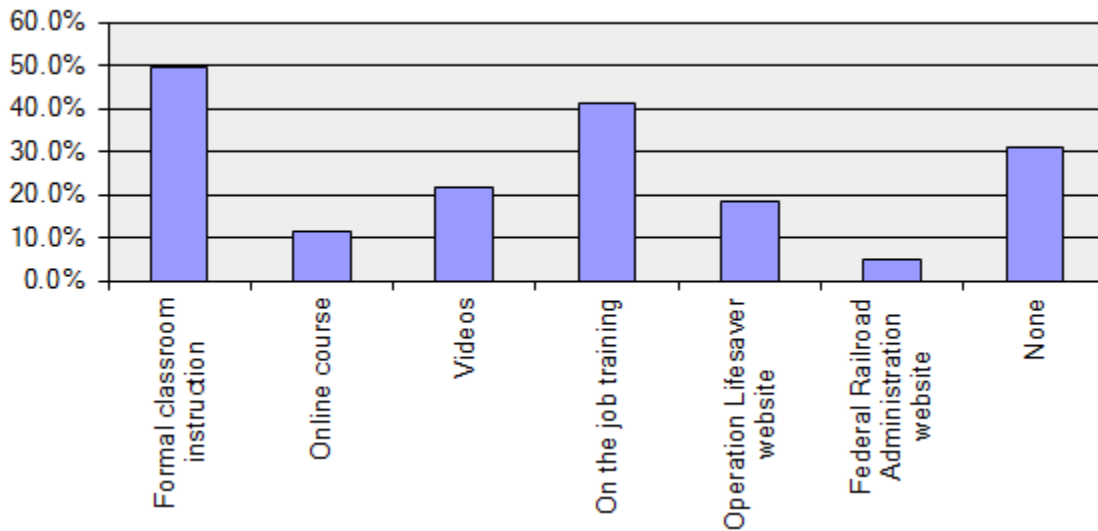


Figure 4: Training Received by Dispatchers Regarding Railroad Emergencies

Respondents to the survey indicated more information on included railroad incident response, incident investigation, jurisdiction, and securing the scene of an accident. Seventy-nine percent of this group indicated they had not received any refresher training in responding to a railroad emergency. When asked if the person would benefit from a refresher course, 88 percent endorsed the concept. These officers selected the type of additional training that would enhance their abilities to deal with a railroad incident. Multiple selections were enabled for this question. Popular venues included formal classroom instruction (68.7 percent), online courses (58.7 percent), on the job training (48.2 percent), and online videos (45.5 percent). See [Figure 5](#). Data from this source strongly supports this project’s mission to develop an informational video.

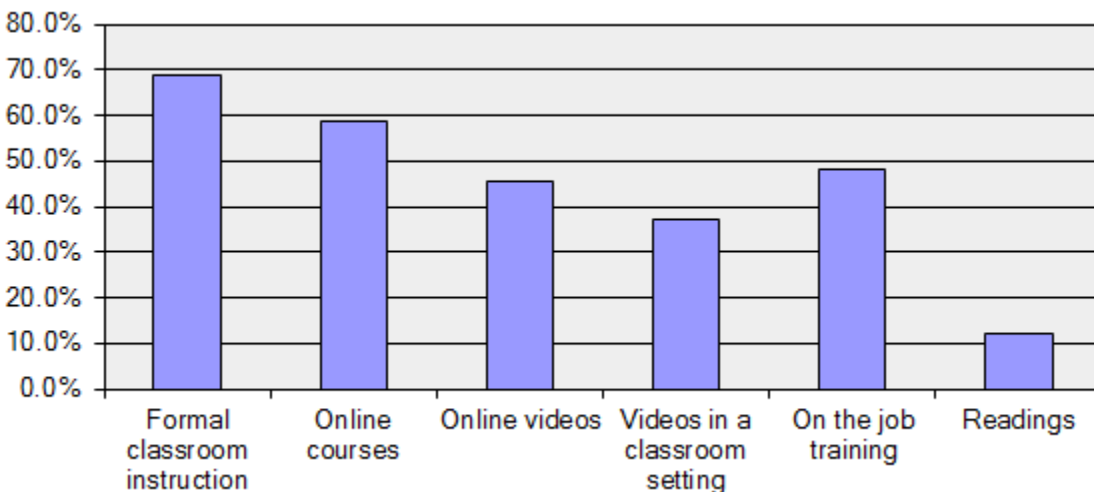


Figure 5: Requested Training to Enhance Ability to Deal with a Railroad Emergency

2.3 Learning Objectives

As a result of the accident investigation reports review and the survey data, the research team developed learning goals for an informational video. Below are learning objectives for the law enforcement video, which encompass the key core objectives: Facts about railroads and railroad incidents; key safety tips; types of railroad emergencies; location and notification of operations center; identification of appropriate emergency responder; and Geographical Information System (GIS) information.

Facts about railroads and railroad incidents (safety, prevention)

1. Understand basic operations of railroads.
2. Review facts and safety concerns involving the railroad (e.g., Emergency Response Guidebook).
3. Identify the types of railroad emergencies (e.g., motor vehicle, trespasser).

Understand necessary communication skills and procedures in responding to a rail emergency. (safety)

1. Establish contact with required persons (e.g., train crew, dispatchers, emergency services) rapidly, effectively, and in the appropriate order.
2. Provide accurate information about the location of emergency occurrence:

- a. USDOT Crossing Identification
- b. Milepost location

Know where to retrieve and how to use (i.e., understand) information about the emergency rail situation. (prevention/enforcement)

1. Identify sources that contain information about contact information for the rail industry.
2. Understand train alerting procedures in case of an on-track incident.
3. Perform necessary enforcement and documentation techniques involving railroads, highway grade crossings, and railroad incidents.

Storyboard

The storyboard for the informational video is presented in [Appendix D](#).

3. Develop Informational Video

3.1 Script

The initial script for the video is located in [Appendix E](#).

3.2 Video

The final informational video was delivered to the FRA and is currently provided on the FRA website.

4. Pilot Program

The pilot program involved distributing the video to several law enforcement personnel and assessing their knowledge transfer after viewing. This process assisted the team in identifying the elements of the video which met and satisfied the specified learning objectives. To specifically evaluate the effectiveness of the video, railroad knowledge was assessed as a pre-assessment and then later examined for any improvements in railroad knowledge after viewing the online video.

4.1 Pre-assessment

For the pre-assessment, the following questions were asked:

1. On average, how frequently is a trespasser or motor vehicle struck by a train in the United States?
2. What are the most common causes of emergencies involving trains?
3. What is the typical stopping distance for a freight train traveling at 55 mph?
4. What are some potential complications you may encounter when responding to a call involving the railroad?
5. In what situation, do emergency responders have right of way over trains?
6. When should you or your dispatcher contact the railroads?
7. What do you need to do to stop oncoming train traffic?
8. What is a USDOT number?
9. What are some key safety guidelines you should observe when responding to an incident involving the railroad?
10. Select all attributes associated with the train crew.
11. What are some proactive and active approaches you can take to reduce railroad emergencies?
12. Where can you find pertinent information to help you prepare for a railroad emergency?

Errors occurred on Question #3, #5, #6, #7, #8, #10, and #12.

4.2 Evaluation of Training Effectiveness

After viewing the video, the dispatchers had a significant improvement in knowledge transfer. Questions with errors in the pre-assessment were not evident in the post-assessment.

4.3 Modifications

No recommendations for changes or modifications for the video were given by stakeholders or law enforcement.

5. Conclusion

Law enforcement officers are typically the first emergency responders to reach the scene of an accident at a grade crossing. As such, it falls on them to ensure the safety of victims, the general public, and themselves. Unfortunately, most law enforcement officers are not provided with the proper training to contend with the many unique hazards and challenges present at a rail accident. Additionally, law enforcement officers can sometimes be unaware of all relevant laws regarding rail crossing safety and railroad trespassing prevention. For example, it is frequently not known that more people are killed while trespassing on railroad property than die in grade crossing collisions. Law enforcement officers often believe that violations occur only when someone is crossing the tracks when the crossing signals are activated.

Proper training will help alleviate issues and is critical when law enforcement encounters rail accidents. To help provide this education, the FRA funded an effort to develop the Rail Safety Training Course for Law Enforcement. The result of this effort is the delivered Rail Safety Training Course for Law Enforcement video.

6. References

- Brotherhood of Locomotive Engineers and Trainmen. (2015). Rail hazmat chemical/emergency response training programs for 2014. Retrieved from <http://www.ble-t.org/pr/news/newsflash.asp?id=5527>
- Centers for Disease Control. (1999). Injuries Among Railroad Trespassers -- Georgia, 1990-1996. Retrieved from <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm4825a1.htm>
- CSX. (2015). Emergency Responder Training and Education - CSX. Retrieved from <http://www.csx.com/index.cfm/community/community-safety-programs/emergency-responder-training-and-education/>
- CSX. (2015b). Train Dispatcher – CSX. Retrieved from <http://www.csx.com/index.cfm/working-at-csx/job-overviews/transportation/train-dispatcher/>
- Education Portal. (2015). Emergency Dispatcher Training Programs and Education Requirements. Retrieved from http://education-portal.com/emergency_dispatcher_training.html
- Education Portal. (2015b). Fireman Training Programs and Requirements. Retrieved from http://education-portal.com/fireman_training.html
- Education Portal. (2015c). Police Officer: An Overview of Police Academy Training. Retrieved from http://education-portal.com/articles/Police_Officer_An_Overview_of_Police_Academy_Training.html
- Essley, L. (2013, April 7). Metro police trying to improve emergency response time. *Washington Examiner*. Retrieved from <http://www.washingtonexaminer.com/metro-police-trying-to-improve-emergency-response-time/article/2526487>
- Federal Railroad Administration (2015). 2.07 - Trespasser Casualties. Retrieved from <http://safetydata.fra.dot.gov/officeofsafety/publicsite/query/castally4.aspx>
- National Transportation Safety Board. (1997). Railroad Accident Brief FR010. Retrieved from <http://www.nts.gov/investigations/AccidentReports/Reports/RAB9822.pdf>
- National Transportation Safety Board. (2000). Railroad Accident Brief FR006. Retrieved from <http://www.nts.gov/investigations/AccidentReports/Reports/RAB0307.pdf>
- National Transportation Safety Board. (2013). Preliminary Railroad Report. Retrieved from <http://app.nts.gov/doclib/reports/2013/DCA13FR014.pdf>
- National Transportation Safety Board. (2003). Railroad Accident Brief RAB-04-01. Retrieved from <http://www.nts.gov/investigations/AccidentReports/Pages/RAB0401.aspx>
- National Transportation Safety Board. (2006). Railroad Accident Brief RAB-06-03. Retrieved from <http://www.nts.gov/investigations/AccidentReports/Pages/RAB0603.aspx>
- National Transportation Safety Board. (2006b). Railroad Accident Brief RAB-06-06. Retrieved from <http://www.nts.gov/investigations/AccidentReports/Pages/RAB0606.aspx>
- National Transportation Safety Board. (2008). Railroad Accident Report RAR-09-02. Retrieved from <http://www.nts.gov/investigations/AccidentReports/Pages/RAR0902.aspx>

National Transportation Safety Board. (2010). Railroad Accident Brief RAB-12-05. Retrieved from <http://www.nts.gov/investigations/AccidentReports/Pages/RAB1205.aspx>

National Transportation Safety Board. (2012). Railroad Accident Brief RAB-14-01. Retrieved from <http://www.nts.gov/investigations/AccidentReports/Pages/RAB1401.aspx>

National Transportation Safety Board. (2012b). Railroad Accident Brief RAB-12-03. Retrieved from <http://www.nts.gov/investigations/AccidentReports/Pages/RAB1203.aspx>

National Transportation Safety Board. (2013b). DCA14MR004. Retrieved from http://www.nts.gov/investigations/Pages/casselton_nd.aspx

National Transportation Safety Board. (2014). DCA14FR007. Retrieved from https://www.nts.gov/investigations/Pages/casselton_nd.aspx

Operation Lifesaver. (2015). Crossing Collisions & Casualties by Year. Retrieved from <https://oli.org/about-us/news/collisions-casulties>

Operation Lifesaver. (2013). Trespassing Fatalities by State. Retrieved from <http://oli.org/about-us/news/statistics/trespassing-fatalities-by-state>

Appendix A. Survey Questions from Third Party

1. How long have you been in law enforcement?
 - a) Less than one year
 - b) One to Three years
 - c) Three to Five years
 - d) Five to Ten years
 - e) More than Ten years
2. What is your primary area or territory?
3. Have you ever responded to a railroad emergency?
 - a) Yes
 - b) No
4. What were the circumstances of the railroad emergency? Select all that apply.
 - a) Trespasser
 - b) Motor vehicle collision
 - c) Multiple train collision
 - d) Derailment
 - e) Fire Explosion
 - f) Track obstruction
 - g) Injured persons
 - h) Other (please specify)
5. Describe how your training has prepared you to handle a railroad emergency.
6. What training did you receive in regards to railroad emergencies? Select all that apply.
 - a) Formal classroom instruction
 - b) Online course
 - c) Videos
 - d) On the job training
 - e) Operation Lifesaver website
 - f) Federal Railroad Administration website
 - g) None
 - h) Other (please specify)
7. How were you tested or evaluated to determine that you were qualified to perform the law enforcement duties involving railroad emergencies? Select all that apply.

- a) Test after course of instruction
- b) Verbally asked questions
- c) Role playing scenarios
- d) I did not complete a test or evaluation

8. How could your initial training have been improved to better prepare you to deal with a railroad emergency? Select all that apply.

- a) Class room training
- b) More online resources
- c) Roll playing exercises
- d) Other (please specify)

9. Were there any specific topics or skills that the training could have covered in more detail? Select all that apply.

- a) Railroad incident investigation
- b) Railroad incident response
- c) Securing scene of incident
- d) Jurisdiction
- e) Other (please specify)

10. What type of training do you think would help you do a better job dealing with railroad emergencies? Select all that apply.

- a) Web based training
- b) Formal classroom training
- c) On the job training
- d) Other (please specify)

11. Since your initial training, have you received any refresher training in responding to a railroad emergency?

- a) Yes
- b) No

12. How long ago was your last refresher emergency response training?

13. Do you feel you would benefit from refresher training?

- a) Yes
- b) No
- c) If no, please elaborate.

14. What type of additional training could enhance your abilities to deal with railroad emergencies? Select all that apply.

- a) Formal classroom instruction
- b) Online courses
- c) Online videos
- d) Videos in a classroom setting
- e) On the job training
- f) Readings
- g) Other (please specify)

15. Name any of the railroads that operate in your jurisdiction/area. Select all that apply.

- a) BNSF
- b) CSX
- c) Amtrak
- d) NS
- e) Union Pacific
- f) Canadian Pacific
- g) Other (please specify)

16. What are the key pieces of information needed in order to properly respond to a railroad emergency? Select all that apply.

- a) Scene safety
- b) Incident reporting
- c) Emergency evacuation
- d) Railroad knowledge
- e) Other (please specify)

17. Where do you find contact information for the railroads? Select all that apply.

- a) Information Plackard(s) near grade crossing
- b) FRA website
- c) FRA location App
- d) Other (please specify)

18. What do you think is of the utmost importance to know when responding to a railroad emergency?

19. What do you think is of the utmost importance to know when investigating a railroad emergency?

20. What is the typical stopping distance for a freight train traveling at 55 mph?

- a) 1/4 mile

- b) 1/2 mile
- c) 3/4 mile
- d) One mile or more

21. On average, how frequently is a trespasser or motor vehicle struck by a train in the United States?

- a) Every 3 hours
- b) Every 6 hours
- c) Every 12 hours
- d) Every 24 hours

22. What are some of the potential dangers to emergency responders in a railroad emergency? Select all that apply.

- a) Mechanical
- b) Pneumatic
- c) Chemical
- d) Electrical
- e) Fire
- f) Environmental

23. What are the most common causes of highway rail grade crossing incidents? Select all that apply.

- a) Trespassing
- b) Driver Negligence
- c) Drivers disobeying or ignoring road signs

24. The fuel source that powers most freight trains is .

- a) Diesel
- b) Gasoline
- c) Coal

25. How can you locate the correct railroad operation center near the scene of a highway grade crossing accident? Select all that apply.

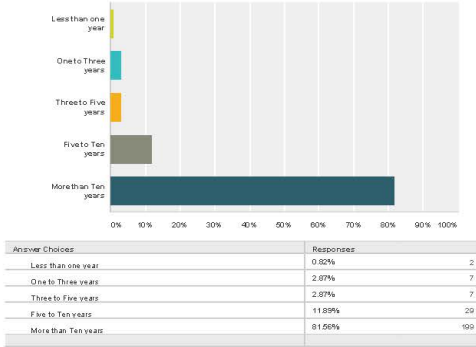
- a) A sign near a highway rail grade crossing will direct you to the correct operation center and will then provide contact information.
- b) Consult NENA handbook for contact information about major class one railroads.
- c) Each railroad car will have the information available onboard to contact the appropriate railroad operation center.

26. How do you stop a train(s) in an emergency situation? Select all that apply.

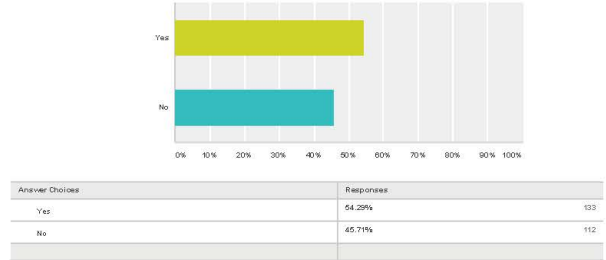
- a) Set up flares
- b) Park 15 feet from track
- c) Stop traffic
- d) Use flashlight to signal train(s) to stop, from at least 1 mile away

Appendix B. Survey Results

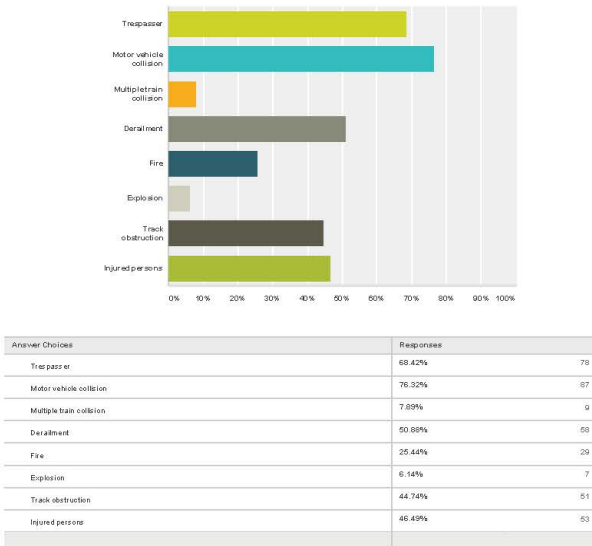
How long have you been in law enforcement?



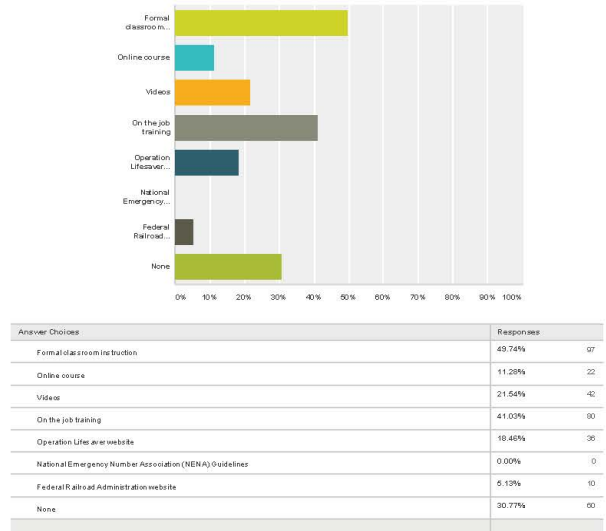
Have you ever responded to a railroad emergency?



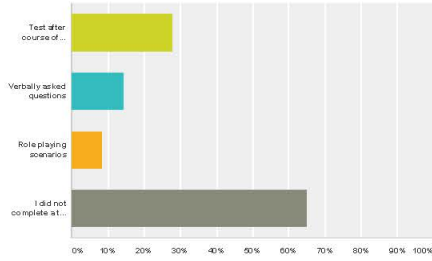
What were the circumstances of the railroad emergency? Select all that apply.



What training did you receive in regards to railroad emergencies? Select all that apply.

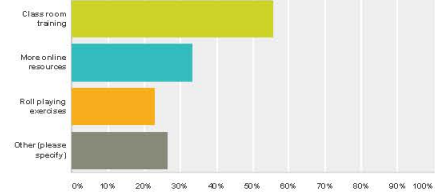


How were you tested or evaluated to determine that you were qualified to perform the law enforcement duties involving railroad emergencies? Select all that apply.



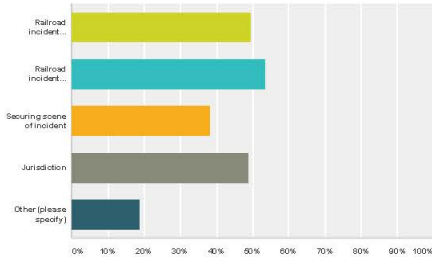
Answer Choices	Responses	Count
Test after course of instruction	27.8%	64
Verbally asked questions	14.4%	28
Role playing scenarios	8.2%	16
I did not complete a test or evaluation	64.9%	126

How could your initial training have been improved to better prepare you to deal with a railroad emergency? Select all that apply.



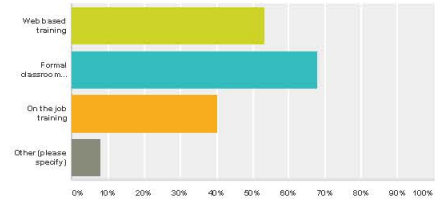
Answer Choices	Responses	Count
Class room training	55.7%	97
More online resources	33.3%	58
Role playing exercises	22.9%	40
Other (please specify)	26.4%	46

Were there any specific topics or skills that the training could have covered in more detail? Select all that apply.



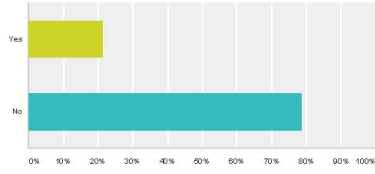
Answer Choices	Responses	Count
Railroad incident investigation	49.4%	84
Railroad incident response	53.5%	91
Securing scene of incident	30.2%	55
Jurisdiction	48.8%	83
Other (please specify)	18.8%	32

What type of training do you think would help you do a better job dealing with railroad emergencies? Select all that apply.



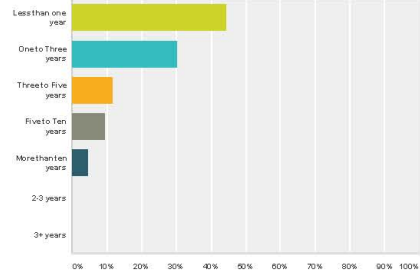
Answer Choices	Responses	Count
Web based training	53.1%	91
Formal classroom training	67.8%	120
On the job training	40.0%	70
Other (please specify)	7.8%	15

Since your initial training, have you received any refresher training in responding to a railroad emergency?



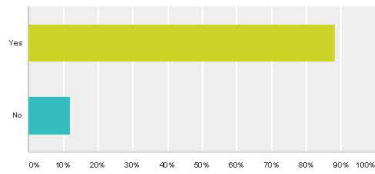
Answer Choice	Responses	Count
Yes	21.35%	41
No	78.65%	151

How long ago was your last refresher emergency response training?



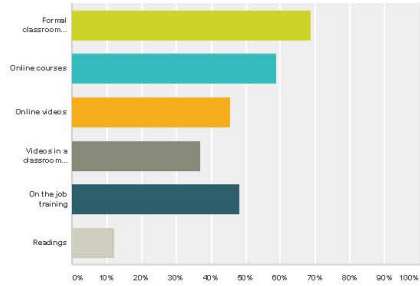
Answer Choice	Responses	Count
Less than one year	44.19%	19
One to Three years	30.23%	13
Three to Five years	11.63%	5
Five to Ten years	9.30%	4
More than ten years	4.65%	2
2-3 years	0.00%	0
3+ years	0.00%	0

Do you feel you would benefit from refresher training?



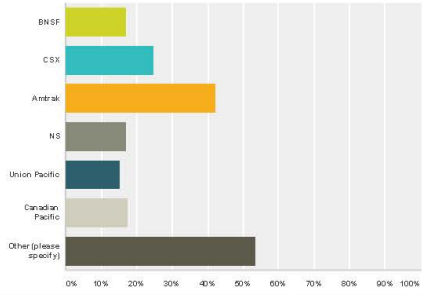
Answer Choice	Responses	Count
Yes	88.54%	171
No	11.86%	23

What type of additional training could enhance your abilities to deal with railroad emergencies? Select all that apply.



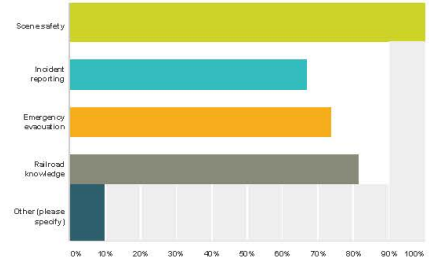
Answer Choice	Responses	Count
Formal classroom instruction	68.78%	130
Online courses	58.72%	111
Online videos	45.00%	86
Videos in a classroom setting	37.04%	70
On the job training	48.15%	91
Readings	12.17%	23

Name any of the railroads that operate in your jurisdiction/area. Select all that apply.



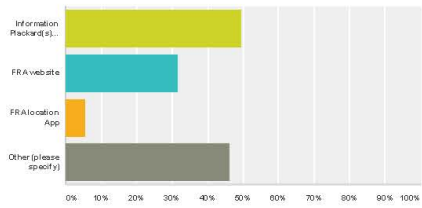
Answer Choices	Responses
BNSF	16.85% 30
CSX	24.72% 44
Amtrak	42.15% 75
NS	16.85% 30
Union Pacific	15.17% 27
Canadian Pacific	17.42% 31
Other (please specify)	53.37% 95

What are the key pieces of information needed in order to properly respond to a railroad emergency? Select all that apply.



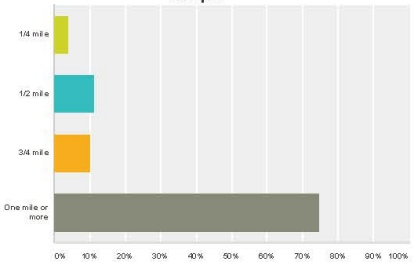
Answer Choices	Responses
Scene safety	91.15% 175
Incident reporting	66.67% 128
Emergency evacuation	73.64% 141
Railroad knowledge	81.25% 155
Other (please specify)	5.21% 10

Where do you find contact information for the railroads? Select all that apply.



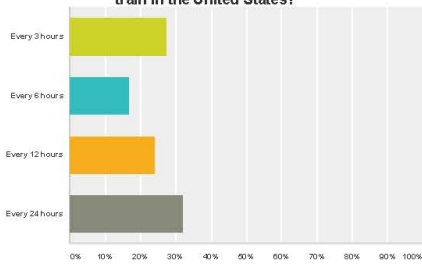
Answer Choices	Responses
Information Placard(s) near grade crossing	49.46% 91
FRA website	31.52% 58
FRA location App	5.43% 10
Other (please specify)	13.20% 25

What is the typical stopping distance for a freight train traveling at 55 mph?



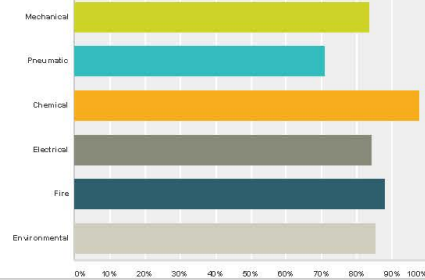
Answer Choices	Responses
1/4 mile	3.90% 7
1/2 mile	11.24% 20
3/4 mile	10.11% 18
One mile or more	74.72% 133

On average, how frequently is a trespasser or motor vehicle struck by a train in the United States?



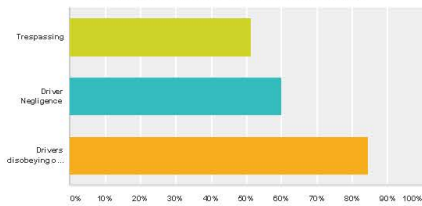
Answer Choices	Responses	Count
Every 3 hours	27.37%	49
Every 6 hours	16.76%	30
Every 12 hours	24.02%	43
Every 24 hours	31.84%	57

What are some of the potential dangers to emergency responders in a railroad emergency? Select all that apply.



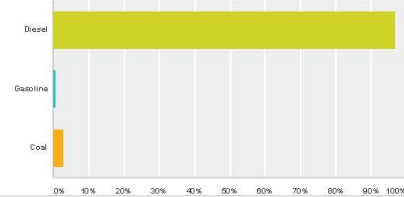
Answer Choices	Responses	Count
Mechanical	83.52%	152
Pneumatic	70.89%	129
Chemical	97.80%	178
Electrical	84.07%	153
Fire	87.91%	160
Environmental	85.16%	155

What are the most common causes of highway rail grade crossing incidents? Select all that apply.



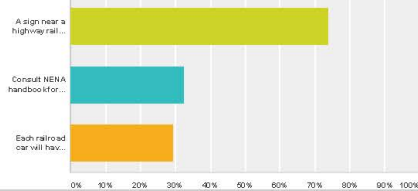
Answer Choices	Response	Count
Trespassing	51.11%	92
Driver Negligence	60.00%	108
Drivers disobeying or ignoring road signs	84.44%	152

The fuel source that powers most freight trains is _____.



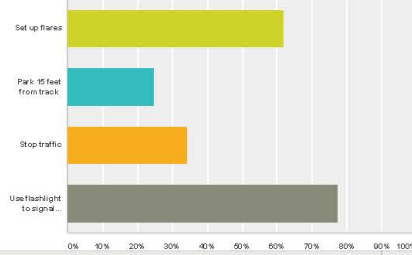
Answer Choices	Responses	Count
Diesel	96.67%	174
Gasoline	0.56%	1
Coal	2.78%	5

How can you locate the correct railroad operation center near the scene of a highway grade crossing accident? Select all that apply.



Answer Choices	Percentage	Responses
A sign near a highway rail grade crossing will direct you to the correct operation center and will then provide contact information.	73.65%	123
Consult NENA handbook for contact information about major class one railroads.	32.34%	54
Each railroad car will have the information available onboard to contact the appropriate railroad operation center.	29.34%	49

How do you stop a train(s) in an emergency situation? Select all that apply.



Answer Choices	Percentage	Responses
Set up flares	61.71%	108
Park 15 feet from track	24.57%	43
Stop traffic	34.29%	60
Use flashlight to signal train(s) to stop, from at least 1 mile away	77.14%	135

Appendix D.
Storyboards

RAIL SAFETY TRAINING COURSE FOR LAW ENFORCEMENT (RSLET)

Picture/Cartoon showing ideas



Dialogue/PowerPoint/Acting/Animation or Stock Footage

Police Officer: Hello dispatch, I am on the scene of a rail accident. Who do I need to notify?

Dispatcher: Please stand by

Narrator: What are the next steps the officer needs to take, and what should the officer do to react?

Arrive at the scene, assist the injured, secure area, stabilize hazards, preserve information, gather and document (sketch, interview witnesses)

Questions or Goals of Training what we are trying to accomplish:

Introduction

There are x number railroad accidents per year, mileage of track – some interesting railroad facts – the likelihood that an officer will encounter an incident/emergency of this type in their career is high.

Is this a core objective? No

EstimateTime:35 seconds

1.0: UNDERSTAND THE TERMINOLOGY USED BY RAILROADS TO ALLOW LAW ENFORCEMENT TO ACCURATELY COMMUNICATE ISSUES TO THE DISPATCH, EMERGENCY RESPONDERS, AND RAILROADS.

Dialogue/PowerPoint/Acting/Animation or Stock Footage

Narrator: Its important to help appropriately communicate if you are the first person on the scene.

Police Officer/Narrator: I have an accident at a highway grade rail crossing, an individual is unresponsive next to the third rail on the tracks, we have a derailment, there is a defective mechanical arm, we have a spill of an unknown substance from a tank car, I have an overturned locomotive, the engineer is trapped, next steps

Dispatcher: Please stand by

Picture/Cartoon showing ideas, stock footage of a derailment, the third rail, a collision, etc.

Questions or Goals of Training what we are trying to accomplish:

Understand terminology

Is this a core objective? No

EstimateTime:45 seconds

1.1: IDENTIFY LOCATION OF DIESEL ENGINE, OPERATING CAB, FUEL TANK, COOLING WATER, BATTERY ACID, PRESSURIZED AIR AND ELECTRIC WIRING CONDUITS. ALSO, THE DIFFERENCE BETWEEN DC AND AC DIESEL ELECTRIC LOCOMOTIVES.

Questions or Goals of Training what we are trying to accomplish: Identify major components.....these are potential safety hazards associated with these components an officer needs to be aware of

Dialogue/PowerPoint/Acting/Animation or Stock Footage, live footage

Narrator: There are many types of locomotives in use throughout the country. Typically these components are found in the following areas. Video pans through the components listed above.

Where is the engineer found

Is this a core objective? No

EstimateTime:45 seconds

1.2: KNOW THE DANGERS OF MECHANICAL, PNEUMATIC, CHEMICAL, ELECTRIC, FIRE, AND ENVIRONMENTAL RISKS THAT ARE POSED TO AN OFFICER/EMERGENCY RESPONDER WHEN AT THE SCENE OF A RAILROAD INCIDENT.-core*

Questions or Goals of Training what we are trying to accomplish: Identify major components.....these are potential safety hazards associated with these components an officer needs to be aware of Use live footage

Dialogue/PowerPoint/Acting/Animation or Stock Footage

Narrator: Now that we have covered locomotive, here are some typical types of cars (tank car, livestock, car carrier, bulk material carriers, food, etc.)There are many types of locomotives and train cars use throughout the country. Typically these components are found in the following areas. Video pans through the components listed above.

Reference NENA Book
Cover placarding on cars – go over generally what placard says

Is this a core objective: Yes

45 seconds

2.0: UNDERSTAND THE RAILROAD'S OPERATING AND SAFETY RULES, INCLUDING FEDERAL REGULATIONS AS THEY APPLY TO BOTH EMERGENCY DISPATCHERS AND THE RAILROAD OPERATING PERSONNEL IN EMERGENCY SITUATIONS. *CORE PICTURE/CARTOON SHOWING IDEAS

Dialogue/PowerPoint/Acting/Animation or Stock Footage
 Video: The CFR 49? Contains regulations that all railroads must comply with such as signaling (when approaching a grade crossing engine must blow horn unless specifically prohibited by state or local restrictions
 Video shows CFR 49 and the book spans through the examples listed above.



Questions or Goals of Training what we are trying to accomplish:
 Each railroad has its own safety rules, however, all railroads rules must comply with the federal regulations in chapter 40 of the CFR -

Is this a core objective? Yes
 EstimateTime: 45 seconds

2.1: IDENTIFY LOCATIONS IN DISTRICT WHERE RAILROADS OPERATE AND UNDERSTAND HOW TO CREATE A WORST CASE SCENARIO PLAN TO DEAL WITH POSSIBLE COLLISIONS.



Dialogue/PowerPoint/Acting/Animation or Stock Footage
 Animation: Show Map
 Narrator describes the abundance of railroads and encourages trainee to become familiar with the railways in there are and develop a response plan and training for incidents that might occur.
 What is the volume?
 Is there a map of your area, where do you find it?

Questions or Goals of Training what we are trying to accomplish:
 Show an animation or map of the continental US demonstrating all the railroads in the country

Is this a core objective? No
 EstimateTime:45 seconds

2.2: HAVE AVAILABLE A LIST OF RAILROAD OFFICIAL'S EMERGENCY CONTACT NUMBERS FOR RAILROAD OFFICIALS TO USE IN THE EVENT OF AN EMERGENCY. UNDERSTAND THE PROCEDURES TO NOTIFY THE CORRECT RAILROAD OPERATIONS CENTER

Questions or Goals of Training what we are trying to accomplishment:


Scene will be shot using animations of locations where this information is available. Eg: screen shot of online information, book with contact info, train consist containing contact info. Etc...

Dialogue/PowerPoint/Acting/Animation or Stock Footage
Animation: Show emergency numbers

Narrator describes the numbers available for notification of railroads

Need to find identification sign near rail crossings.

Basically who operates in their jurisdictions.




Is this a core objective? No

EstimateTime:45 seconds

3.2: KNOW THE PRIMARY SOURCE OF RAILROAD EMERGENCY PROBLEMS; MOTOR VEHICLE COLLISION, TRESPASSER, DERAILMENT, TRACK OBSTRUCTION, INJURED PERSONS, FIRE

Questions or Goals of Training what we are trying to accomplishment:

When a call comes in, be aware of the primary source of emergency problem.
Dialogue/PowerPoint/Acting/Animation or Stock Footage
Video: Stock Footage with Narration



Is this a core objective? No

Estimate Time: 45 seconds

3.0: DEMONSTRATE THE ABILITY TO IDENTIFY THE TYPES OF RAILROAD EMERGENCIES. DEFINE AN EMERGENCY. GIVE EXAMPLES OF EMERGENCY SITUATIONS.

Questions or Goals of Training what we are trying to accomplish:
Anything that is life threatening to person, animal, residential area, or landscape
Give examples of emergency situations:
- A train derailment
- The brakes fail on a locomotive causing it to crash into another locomotive
- A car got hit as it crossed the railroad causing life threatening injuries

Dialogue/PowerPoint/Acting/Animation or Stock Footage
Video: Use stock footage of videos
Review a case study – i.e. back in 1980 there was a derailment, loss of life, and loss of property, etc.



Is this a core objective? No
EstimateTime:45 seconds

3.1: KNOW HOW TO STOP AN ONCOMING TRAIN IN THE EVENT OF AN EMERGENCY.-CORE*

Questions or Goals of Training what we are trying to accomplish:
Implement emergency contact procedures and flagging techniques to stop any additional railroad and vehicle traffic.

Dialogue/PowerPoint/Acting/Animation or Stock Footage
Video: Stock Footage with Narration and Actors



Is this a core objective? Yes
Estimate Time: 45 seconds

4.0: DEMONSTRATE CLEAR AND COHERENT COMMUNICATION SKILLS AND PROCEDURES WITH TRAIN CREWS, RAILROAD OPERATING PERSONNEL, EMERGENCY RESPONDERS, AND DISPATCHERS. - CORE*



Questions or Goals of Training what we are trying to accomplish:

Use plain language, never use codes or acronyms. Show NENA book section

Dialogue/PowerPoint/Acting/Animation or Stock Footage
 Video: Show accident scene

Narrators: we have an HSR which has struck a bogey down in the swamps. If you were a dispatcher would you know where this is? Always use plain language... voice mimicking a police officer. Officer describes scene. "We have a pick-up truck that has been struck by a train at the intersection of Elm and Maple at a grade crossing.

Is this a core objective? Yes

EstimateTime:45 seconds

4.3: DEMONSTRATE THE ABILITY TO PROVIDE ACCURATE INFORMATION ABOUT THE LOCATION OF EMERGENCY OCCURRENCE.

Questions or Goals of Training what we are trying to accomplish:

What are the means and methods to determine location i.e. high way milepost, GPS, grade crossing sign, nearest street sign or intersection etc for instance your railroad identifiers could have been wiped out during the accident, be prepared to have alternate ways to identify

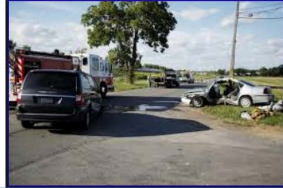
Dialogue/PowerPoint/Acting/Animation or Stock Footage
 Video: Show stock footage, different examples of ways to identify location (ie milepost, street sign, handheld GPS, railroad sign, etc)



Is this a core objective? No

Estimate Time: 45 seconds

4.1 DEMONSTRATE THE ABILITY TO CLEARLY AND ACCURATELY INFORM, INSTRUCT, OR DIRECT EMERGENCY SERVICES AND NECESSARY OFFICIALS AS MAY BE APPROPRIATE



Questions or Goals of Training what we are trying to accomplish:

From your understanding of hazards you may experience earlier help specifically describe what is going on to the dispatcher and what additional services may be needed to assist first responders

Dialogue/PowerPoint/Acting/Animation or Stock Footage

Video: Show same accident scene as slide 11

Narrators: I have a train that has derailed, ie occupants in vehicle are so severely injured they need a life flight. Determine landing zone or send out a hazmat clean up team or the firefighting hazmat team has arrived on scene.

Is this a core objective? No

EstimateTime:45 seconds

7.3: IDENTIFY WHAT TYPE OF SPECIAL EMERGENCY RESPONSE IS NEEDED AS SOON AS ARRIVING ON THE SCENE AND POSSESS THE TOOLS TO CONTACT SUCH ENTITIES.

Will hazmat need to be called? Will the area surrounding the incident need to be evacuated? Use correct contact procedures to elicit response from specialized team.

Caller: The area of the incident needs to be evacuated and a HAZMAT team brought out asap.

Acted out with narration



Is this a core objective? No

45 seconds

7.4: LOCATE VEHICLE AND POTENTIALLY INJURED PARTIES INVOLVED AND MAKE NECESSARY NOTIFICATIONS TO ALLOW OFFICERS TO ASSIST THOSE IN NEED OF HELP.

●Use acted and stock footage with narration to display stopping train and helping injured parties.



Locate vehicle and injured people by GPS or visually inspecting the area. Injured parties should be identified and helped immediately by radioing or telephoning the appropriate emergency response service.

Is this a core objective? No
40 seconds

4.2: IDENTIFY THE TYPES OF INFORMATION NEEDED TO SUCCESSFULLY DETERMINE THE APPROPRIATE EMERGENCY RESPONSE AND/OR EQUIPMENT NEEDED.

Dialogue/PowerPoint/Acting/Animation or Stock Footage
Powerpoint: Show response checklist we found online.

Narrator talk thru the points of the checklist.



Questions or Goals of Training what we are trying to accomplish:
Review the 2012 Emergency Response Guidebook.

is there a standard police checklist for accident scene response?

<http://www.apta.com/resources/standards/Documents/APTA-RT-OP-S-002-02.pdf>

Is this a core objective? No
EstimateTime:45 seconds

5.0: KNOW WHERE TO RETRIEVE, AND HOW TO USE (I.E., UNDERSTAND) INFORMATION ABOUT THE EMERGENCY RAIL SITUATION. –CORE*.

A narrator will discuss how to use source websites to get the information they need.
i.e. Police Website

List two sources that contain information about characteristics of the territory.
www.citytowninfo.com/places/massachusetts/Leominster

Is this a core objective? Yes

Multiple sources of this information should be included in the video such as the NENA handbook, hazardous material book, police website, and FRA rail laws app.

40 seconds

7.2: UNDERSTAND THAT DISPATCH/RAIL RIGHT OF WAY CONTROL AUTHORITY AND THE LOCOMOTIVE OPERATOR MAY BE DIFFERENT ENTITIES. UNDERSTAND THE UTILITY OF THE FRA LOCATION APP FOR RAILROAD CONTACT INFORMATION. UNDERSTAND THE UTILITY OF THE NENA HANDBOOK AND RAILWAY SIGNS AND ON CAR CONTACT INFORMATION FOR FURTHER RAILROAD CONTACT INFORMATION.

Narrator can read or discuss the NENA Handbook, for example, and explain the importance of understanding the train manifest.

Graphic/Animation or stock footage with Narration.



Training required.

Is this a core objective? No

60 seconds

7.5: IDENTIFY POTENTIAL ON SCENE HAZARDS AND UNDERSTAND THE UTILITY OF THE TRAIN MANIFEST IN KNOWING CONTENTS OF A TRAIN.

- Use acted and stock footage with narration. A graphic of a train manifest could be helpful.

Officers should be able to find and decipher the train manifest. This information is helpful in determining what contents the train is carrying.

75TH STREET RAILROAD CLUB TRAIN MANIFEST
 TRAIN: 443 DATE: 7/26/1983
 FROM: Grand Yard Lgd West TIME: 12:45pm PAGE: 1
 MOTIVE POWER: UP 3540 2-4-0 CABOOSE: 2755

Co	Type	From	To	Contents/Weight
3542	1128	BOXCAR	ENG	EMEL empty
3539	3011	BOXCAR	ENG	EMEL tankwater
UP	3426	BOXCAR	ENG	EMEL tankwater
UP	3708	BOXCAR	ENG	EMEL tankwater
UP	3374	BOXCAR	ENG	EMEL tank
UP	3576	BOXCAR	ENG	EMEL empty
UP	3537	BOXCAR	ENG	EMEL Lubricating
UP	3548	BOXCAR	ENG	EMEL tank
UP	3525	BOXCAR	ENG	EMEL gas
UP	3534	BOXCAR	ENG	EMEL empty
CNS	411	BOXCAR	ENG	EMEL tank
CNS	412	BOXCAR	ENG	EMEL tank
BNP	107	KEEPER	MTN	OTR tank
SN	1184	BOXCAR	ENG	OTR tank
BNP	425	BOXCAR	ENG	OTR tank
SN	1185	BOXCAR	ENG	OTR tank
UP	3704	BOXCAR	ENG	OTR oil-tanks
UP	4018	STOCK	EMEL	oil
UP	4019	STOCK	EMEL	oil
UP	4020	STOCK	EMEL	oil
UP	4021	STOCK	EMEL	oil
UP	4022	STOCK	EMEL	oil
UP	4023	STOCK	EMEL	oil
UP	4024	STOCK	EMEL	oil
UP	4025	STOCK	EMEL	oil
UP	4026	STOCK	EMEL	oil
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UP	4093	STOCK	EMEL	oil
UP	4094	STOCK	EMEL	oil
UP	4095	STOCK	EMEL	oil
UP	4096	STOCK	EMEL	oil
UP	4097	STOCK	EMEL	oil
UP	4098	STOCK	EMEL	oil
UP	4099	STOCK	EMEL	oil
UP	4100	STOCK	EMEL	oil

Is this a core objective? No
 40 seconds

6.0: LAW ENFORCEMENT: DISCUSS IMPORTANCE OF LAW ENFORCEMENT REGARDING GRADE CROSSINGS INCLUDING THE STATISTICS SURROUNDING GRADE CROSSING COLLISIONS

Narrator will discuss statistics regarding accidents caused by not following laws surrounding rail crossings, or surrounding police not enforcing these laws.

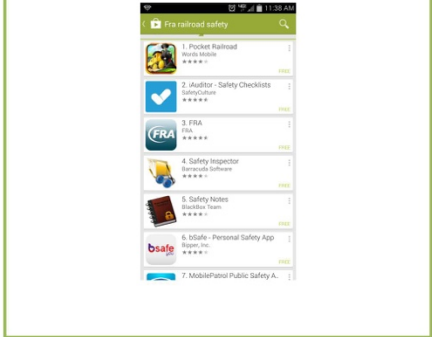
Statistics: <http://oli.org/about-us/news/collisions-casualties>

Is this a core objective? No
 45 seconds

6.1: UNDERSTAND LAWS CONCERNING CROSSINGS.

Consult FRA app or online resources to find information about your states laws on highway grade crossing/railroad laws.
<http://drivinglaws.aaa.com/laws/railroad-crossing/>

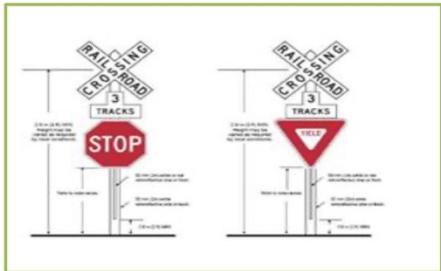
Narrator will discuss how each state has different laws and officer must be familiar with laws of his or her state and district.



Is this a core objective? No
30 seconds

6.3: RECOGNIZE DIFFERENT FORMS OF ACTIVE AND PASSIVE WARNINGS AND SIGNALS AND THE WAYS IN WHICH DRIVERS MUST ABIDE THEM. – CORE*

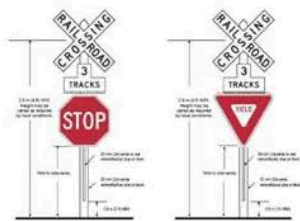
•Narrator will discuss the different types of warning signals and how drivers must obey them.
•We will use stock footage and Narration.



Is this a core objective? No
15 seconds

6.5: UNDERSTAND THE POSSIBILITY OF MALFUNCTIONING SIGNALS AND HOW TO REPORT THEIR OCCURRENCE.

Signal malfunctions should be reported to the railroad responsible for the signal. At signalized crossings, the crossing number and an emergency contact number are posted on the signal house. If unsure what railroad to call, contact the local law enforcement agency. (office of rail transportation)-Narration



Caller: I'm calling to report there was a malfunctioning signal that caused the car to drive over the tracks at the same time the train was going through.
We will use stock footage and Narration.

Is this a core objective? No

30 seconds

6.2: UNDERSTAND WHAT LAW ENFORCEMENT TOOLS ARE AVAILABLE FOR GRADE CROSSINGS

We will use actors to demonstrate law enforcement tools, traffic stops such as in Roll call. We will use animation and stock footage to show laws concerning crossings and statistics. We will use stock footage of crashes with narration to depict the importance of law enforcement around highway rail grade crossings.

Narrator will discuss techniques such as active and passive enforcement of railroad areas including speed traps.

Is this a core objective? No

30 seconds

6.4: DISCUSS THE DANGER AND SERIOUSNESS OF TRESPASSING AND HOW TO PREVENT IT FROM OCCURRING.

Trespassing along railroad rights-of-way is the leading cause of rail-related deaths in America. Nationally, more than 430 trespass fatalities and nearly as many injuries occur each year. The vast majority of these are preventable. Most railroad trespassers are pedestrians who use railroad tracks as a shortcut. (-Sample dialogue that can be used by Narrator

Caller: A person has trespassed on the railroad tracks and has fallen off the track into the street below. Narrator will discuss the dangers involved and how to prevent scenes like this from happening by discussing FRA.dot.gov/Page/P0617

Scene will consist of stock footage of trespassing with a Narrator.



Is this a core objective? No

45 seconds

7.6: IDENTIFY AND AVOID POTENTIAL ELECTRIC SHOCK HAZARDS SUCH AS THIRD RAIL, ELECTRICAL CATENARIES, CONDUITS, AND COLLISIONS WITHIN TUNNELS.

Be knowledgeable of the specific dangers of electric hazards associated with railroads within your district and on the scene of the accident.



•Narration explaining what a catenary is and how to avoid potential electric shock. Stock footage of catenaries and conduits etc..



Is this a core objective? No

40 seconds

7.7: PREDICT AND AVOID POTENTIAL SCENE DESTABILIZING HAZARDS SUCH AS MUD SLIDES AND LOCOMOTIVE DESTABILIZATION, THIRD RAIL, ELECTRICAL CATENARIES, AND COLLISIONS WITHIN TUNNELS.

- Know what risks an officer may encounter when approaching a scene with a derailed or unstable train. Assess environment to know what dangers may precipitate during the incident response.

•Narrator could explain how to avoid such situations beforehand by informing the railroad agencies, fire, and police of possible hazards in the coming weeks due to weather and rail repair efforts in place. Could be acted as well - A combination of both would probably be very effective.



Is this a core objective? No
60 seconds

7.8: REDUCE ON SCENE HAZARDS AND UNDERSTAND WHERE TO MOST SAFELY ENTER THE SCENE OF THE ACCIDENT.

- Officers should be able to visually assess incident, terrain, and potential on scene hazards to quickly and safely enter and begin emergency procedures.

•Caller: there is a derailed train that has slid into the tributary . There is traffic backed up on the road.

•Have the narrator explain the steps to be aware of and to avoid when emergency crew are approaching the site and at the site.



Is this a core objective? No
40 seconds

7.9: DEMONSTRATE UNDERSTANDING OF WHEN AND HOW CONTROL OF COLLISION SCENE WILL BE TRANSITIONED TO OPERATING RAILROAD OR OTHER AUTHORIZED ENTITY.

At what time will incident be turned over to authorized entity? Officer should understand protocol of when control will be surrendered to different authority.

•Caller: The green line on the MBTA derailed in the tunnel.
The narrator can explain that in a case like this, the MBTA, for example, will be called. Use acted footage of a police officer turning over the scene of a railway incident to the authorized MBTA specialist.



Is this a core objective? No
30 seconds

7.10: UNDERSTAND THE IMPORTANCE OF EMERGENCY EVACUATION AND INCIDENT REPORTING.

Railroad emergency and evacuation incidents need to be reported for investigation and determination into their cause and compliance with existing safety laws and regulations.

•Use acted footage of a police officer aiding and directing emergency evacuation. Could use narrated graphic or stock footage of an officer preparing an incident report.



Is this a core objective? No
45 seconds

**Appendix E.
Final Script**



Law Enforcement Training

The information presented is for familiarization and is not intended to take the place of actual training, replace basic safety rules, department guidelines, or established regional response protocols. This information is useful for pre-emergency planning to develop a safe and efficient action plan and providing a common objective for everyone on the accident scene.

Video	Police Officer
<p>Footage of a motor vehicle crash involving a train. Show Police officer arriving on scene. (**Prefer actual 911 call for authenticity)</p> <p>Scene fades out... to backdrop stock footage for what narrator begins saying</p> <p>Show map of country with all railroad tracks. Show statistic somehow.</p> <p>Put 911 call in the video, with wording on screen.</p>	<p>Car 11 to Dispatch: "There is a pick-up truck that was struck by a train at the intersection of Elm and Maple at the rail grade crossing".</p> <p>Narrator:</p> <p>Did you know there are over 200,000 miles of railroad tracks in use in the United States that carries both passengers and freight from coast to coast?</p> <p>Statistically, about every three hours a person or motor vehicle is involved in a collision with a train. These incidents may result in a fatality or critical injury, as well as extensive damage to the train, tracks, vehicles, surrounding property, and the community. With such a high frequency of occurrence, the possibility of responding to an incident involving a train at some point in your career is highly likely.</p> <p>Listen to the following 911 call involving a trespasser.</p> <p>Are you prepared to respond to this type of call?</p> <p>This video is designed to provide valuable information that may assist you when responding to a railroad emergency.</p>
<p>Show signs, show accidents, different stock footage that relates to these questions.</p>	<p>What information is needed to respond to a call? What steps will you take when responding to a railroad emergency?</p>

<p>Stock footage of railroad tracks, people walking near a railroad, and a car traveling through a grade crossing</p> <p>Montage of car accidents at grade crossings or video of gates, active warning signals, etc. at crossings with motorists disobeying signals and warnings</p> <p>Stock footage of a train traveling down a track.</p> <p>Graphic showing footballs fields ahead of or alongside track of stopping train</p> <p>Show the video of a soda can being crushed by a vehicle.</p>	<p style="text-align: center;">Narrator:</p> <p>Most railroad incidents are avoidable if motorists and pedestrians heeded warning signs and complied with traffic control devices and laws. Grade crossing collisions involving vehicles may occur because the motorist was: impatient, misjudged the train speed and distance, failed to look in both directions when approaching a crossing, or was distracted.</p> <p>The severity of motorist injury in vehicle-train collisions is significant. A motorist is many times more likely to die in a collision involving a train than in a collision involving another vehicle.</p> <p>Locomotive weights range from approximately 150,000 to 450,000 pounds. Freight trains could reach weights in excess of 12,000,000 pounds. The sheer mass of a train makes it impossible to halt its movement quickly. If a train is traveling at 55mph, it may take a mile or more for the train to come to a complete stop. This is equivalent to the length of 18 football fields! The train crew may not be able to stop the train quickly enough to avoid a collision.</p> <p>Think of this analogy. Imagine what happens to a soda can run over by a car. The weight ratio between a typical 3,000 pound car and a 12 ounce can of soda is 4,000 to one. By comparison, the weight ratio between a typical 2 million pound freight train and that same 3,000 pound car is also 4,000 to one. A train hitting a car is comparable to a car running over a can of soda.</p>
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<p style="text-align: center;">Video:</p> <p>Stock footage of various types of trains, or still pictures.</p> <p style="text-align: center;">Include video of police officer in colored vest.</p> <p style="text-align: center;">Start with a few shots of different cars. (tank car, generic cargo, car carrier)</p> <p>Cut to a couple of close ups of the placards on the sides of cars.</p> <p style="text-align: center;">GFX:</p> <p>Full-screen graphic of the various placards small logos, as we read through them zoom the current one out to be much larger. Write the danger the placard represents under it</p> <p>After showing placards, refer to the emergency guide book for further instructions.</p> <p style="text-align: center;">GFX:</p> <p>Cover of the Emergency Response Guidebook and maybe a brief description of how to use if relevant.</p>	<p style="text-align: center;">Narrator:</p> <p>No one is immune from the dangers present at a highway grade crossing, including you. At the scene, park clear of the tracks. Make sure that all railroads involved have been notified, and train traffic has been stopped on the tracks. Look in both directions before getting close to or stepping across the track. Avoid walking between the rails and do not step or stand on the rail. Safety is paramount!</p> <p>Being aware of the various types of railroad equipment and the possible cargo they may contain could save your life. The cargo may pose a chemical, electrical, environmental or fire risk to the officers and emergency responders at the scene. Look for railcar placards to identify what type of hazardous materials these cars may be carrying.</p> <p>The Emergency Response Guidebook , or ERG, contains important information on hazardous materials and the appropriate hazardous material spill response. You should familiarize yourself with the information contained in the ERG to prepare you on how to respond to emergencies that may involve hazardous materials including, flammable, toxic, corrosives, and gases.</p>
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<p>EDT footage here, showing them contacting the railroads. Possibly shoot a call from an officer to the dispatcher reading this information off.</p> <p>Video of train striking something and then traveling</p> <p>A train stopped with an engineer/conductor looking at the locomotive and cars for damage or evidence of collisions</p> <p>Show LE Officer communicating with a conductor</p> <p>Examples include chasing a suspect through a train yard, or responding to a trespasser. Show video instead</p>	<p>Narrator:</p> <p>Once the scene is deemed safe, one of your priorities should be to locate the train crew or a representative of the railroad immediately. The train crew has important information that can aid in your response. Remember, trains may take a mile or more to stop, so the train crew may not be at the immediate scene of the impact.</p> <p>On freight and passenger trains, train crews typically include a conductor and engineer. Normally, the engineer will stay in the cab at the locomotive's controls or elsewhere onboard the train. The conductor may meet you upon your arrival and provide information about the location and contents of the rail cars in the train. The train crew will likely have firsthand account of the incident and may be the only witnesses to the event. Because the train is not a motor vehicle, the engineer is not required by law to have a driver's license.</p> <p>Many times, we forget that the train crew members are also victims of this tragedy. When making contact, know that they may be suffering from injuries, as well as the emotional stress of the incident. Imagine if you did not have the capability to avoid colliding with a motor vehicle or a trespasser. The train crew cannot stop the train quickly, has no option to maneuver around a potential threat, or in some instances may not be aware that an incident has occurred.</p> <p>Even in situations that do not directly involve a train, but still occur on railroad property, you should always contact the railroad. Be aware that trains may operate at any time, in either</p>
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<p style="text-align: center;">Video:</p> <p>A few shots of warning signals, ones with and without trip arms.</p>	<p>direction, and on any track. The railroads can help protect you and the scene by controlling train traffic and, ensuring railroad personnel are notified of your presence. They can also authorize the train crew to move a train as necessary.</p> <p style="text-align: center;">Narrator:</p> <p>Let's talk a bit about railroad grade crossings. There are two types of grade crossings: public and private. Private crossings may be marked if required by statute, government regulations, or private contract. Public crossings are required by law to be marked with a grade crossing sign, commonly referred to as the crossbuck sign. The crossbuck sign is equivalent to a yield sign, requiring all vehicles to yield right-of-way to the train. Advance warning signs alert motorists of a grade crossing ahead and all motorists must be prepared to stop if a train is approaching or occupying the crossing.</p> <p>All vehicles, including emergency vehicles responding to a call, must yield to a train.</p> <p>Crossings may also be equipped with active traffic control devices, such as flashing lights, gates and bells, which are activated automatically. Railroad companies are responsible for installing and maintaining these warning systems.</p>
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<p>Video: Signal shot, generic, shot of the signal house showing the contact information.</p>	
<p>Show motorists violating laws: not yielding or stopping.</p>	<p>Active traffic control device malfunctions occur infrequently and should be reported immediately to the railroad. Use the emergency contact number located on the emergency notification sign to relay the USDOT number.</p> <p>Always take the necessary and appropriate actions when responding to a railroad related emergency. There are proactive and preventive actions that you can take that can greatly reduce the number of incidents and potentially prevent tragedies.</p> <p>One approach is to know the tracks and railways in your jurisdiction, especially the grade crossings, advanced warning signs, and active traffic control devices in your area that alert drivers to approaching trains.</p> <p>Too often, motor vehicle operators are unfamiliar with or do not consider traffic laws pertaining to grade crossings. This lack of consideration or understanding can result in catastrophic incidents that may impact an entire community. Your presence near a railroad grade crossing can positively influence a motorist's driving habits.</p> <p>Position your cruiser in a conspicuous manner near the grade crossing and monitor the crossing for compliance with the law.</p>

<p>Police officer performing enforcement techniques. Pulling someone over. Parked near track watching people and them seeing him/her there.</p> <p>Show patrol car at school zone.</p>	<p>Motorists will be less likely to violate the law or put themselves and their passengers in harm's way if an officer is present and monitoring driver behavior.</p> <p>Use the opportunity to educate drivers, and if necessary, reinforce your message by issuing citations for infractions.</p>
<p>Show pedestrians walking near or on track.</p> <p>Images of body bags (after accident).</p> <p>Video of bike riders or joggers near a railroad. Pedestrian with headphones.</p> <p>People climbing on or under train cars</p> <p>Video of obstruction on track.</p>	<p>Narrator:</p> <p>Trespassers on railroad property also present an avoidable danger. Not only is trespassing on railroad property a violation of the law, but trespassers often don't realize they are putting their own lives at risk. Every year hundreds of people die while trespassing and the scene may be more catastrophic than that of a motor vehicle collision. Trespasser fatalities are rising and now exceed the number of deaths from train-vehicle collisions.</p> <p>Risky behaviors, such as biking or running adjacent to the track often result in a tragic ending when the person does not hear approaching trains. When there are multiple tracks, sound may be distorted and may obscure other approaching trains. There are those who try to climb through a train or attempt to jump on a train, and are knocked off when the train moves abruptly.</p> <p>Besides putting themselves in danger, trespassers may commit malicious acts intended to harm others. Tampering with signals or tracks, breaking locks on track switches, or placing debris on rails has caused disastrous wrecks. Damaging, removing, or stealing railroad signals, signs or equipment could result in a failure of the train control system, which could result in a head-on collision, a misrouted train and other catastrophic failures.</p>

	<p>Even though trespassing may be considered a minor crime elsewhere, railroad trespassing incidents may have devastating life-long affects not only on the individual and railroad personnel but the community as well. Most railroads encourage and support law enforcement officers in their effort to apprehend and prosecute trespassers. Railroad authorities can provide invaluable assistance with investigations, prosecutions, trespasser abatement programs and installing additional signage.</p> <p style="text-align: center;">Narrator:</p> <p>Lastly, you and your colleagues should prepare and preplan courses of action for railroad emergencies. Does your station have an established protocol? Do you have a standard operating procedure? Do you know how to find the railroad contact information? If you answered stated no to any of these questions, now is the time to start preplanning.</p> <p>The Federal Railroad Administration is responsible for ensuring our nation's railroads comply with federal regulations. They can also assist you in your investigations. Visit the FRA website for more details. Other online agency sites, such as the Federal Highway Administration, provide valuable information useful in responding to a railroad emergency. Operation Lifesaver is a national non-profit organization whose mission is to end</p>
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<p style="text-align: center;">GFX:</p> <p>A map of the US with Railways highlighted, or a couple of different generic maps with them marked (might be easier to decipher)</p> <p>Video: Police officer, in front of his/her patrol car, talking to the camera.</p>	<p>There are an abundance of railroads in each state. If you become familiar with the ones in your district you can then develop an emergency response plan for incidents in your area of responsibility. Check with your EMA, dispatch, and firefighter personnel to coordinate response plan efforts. Take note of any grade crossings and places of high rail volume. Develop a map of the area you patrol that has the railways marked on it, and more importantly make a list of all the railroad emergency contact numbers. Utilize these resources to help you better prepare to respond to a rail related incident.</p> <p style="text-align: center;">Police officer:</p> <p>This video provides you with the tools that will assist you when responding to a railroad emergency. Keep in mind the following points:</p> <ul style="list-style-type: none">• Make sure the railroad is aware of your presence on their property. Expect movement of trains, engines, cars, and other rail equipment at any time, on any track, and from either direction.• Know your access routes. How do I get in?• Know the precise location of point of impact and the final resting position• Identify hazardous and environmental risks.• Make contact with the train crews. The crew will be instrumental in the response efforts.• And finally, your agency should have a policy or protocol to handle railroad incidents? If not, now is the time to put one together. Contact the railroads in your area to begin the conversation.• ALWAYS follow protocol and prepare yourself for a call involving railroads.
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Abbreviations and Acronyms

BLE	Brotherhood of Locomotive Engineers
CFR	Code of Federal Regulations
EDT	Emergency Dispatcher Training
FMVSS	Federal Motor Vehicle Safety Standards
MBTA	Massachusetts Bay Transit Authority
OLI	Operation Lifesaver, Inc.
OSHA	Occupational Safety and Health Administration
UTU	United Transportation Union