Education for Pedestrians at Level Crossings

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1. Outline of JR East

2. JR East Group Safety Plan 2018 (five-year safety plan)

3. Main efforts for level crossing safety

4. Education for pedestrians at level crossings

5. Pursuing “Ultimate Safety”
Outline of JR East

JR Group Map

JR Hokkaido

JR East

JR Kyushu

JR Shikoku

JR West

Osaka

JR Central

Tokyo

JR Freight
Outline of JR East

(As of April 1, 2013)

- Employees: 59,370
- Working line-kilometers: 7,512.6 km
- Stations: 1,688
- Passengers carried: About 16 million/day
- Trains operated: 12,784/day
- Units of rolling stock: 13,469
- Number of level-crossings: 7,037

Shinkansen lines
(...... Under construction)

Conventional lines
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6th Five-Year Safety Plan
“JR East Group Safety Plan 2018”

1987
Establishment of JR East

1989
Safety Priority Investment Plan

1994
Safety Basic Plan

1999
Safety Plan 21

2004
Safety Plan 2008

2009
2013 Safety Vision

2014
JR East Group Safety Plan 2018

Ultimate Safety
Accidents caused by railway system
Completely Prevented ⇒ nil

Accidents caused by car driver behavior at level crossings and passenger behavior on the platform, etc
Implementation of efforts in level crossing safety in cooperation with pedestrians, car drivers, and the community in general

Accidents caused by external factors including natural disasters involving earthquake, snow, rain, wind, etc
Reduction of risk where possible

3 Directions

Accidents involving passenger injuries or fatalities 0
Accidents involving employee fatalities 0
For "Accidents Closely Related with Society", Develop Comprehensive Solution in the Community

Risks at level crossing

- Trains collide with cars, killing / injuring passengers on board
- Crossing pedestrians killed or injured

◇ Install obstruction warning devices for level crossings and equip obstacle detectors.
◇ In addition to our campaign, we also work on the abolishment of certain level crossings through the cooperation of local governments and citizens.
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Trend in the number of level crossing accidents

Number of level crossing accidents:
Accident where train and/or carriages hit person(s) and/or cars on level crossing

247

36

( Fiscal year )
Level crossing obstruction detectors

3D laser radar system

On the basis of 3-dimensional data measured by laser beams, obstructions are detected in a pre-determined monitoring area and the obstruction warning signal displays a stop signal to the train.

Installed detectors 2754 (42% rate)
When an error or irregularity at a level crossing is noticed, pedestrians or drivers press the emergency train stop button. Then the obstruction warning signal displays a stop signal for the train.

**Installed detectors 4154 (63% rate)**
Classifications of level crossing in Japan

**Class 1, Level crossing**
- Crossing gates are lowered to close road traffic for all passing trains.

**Class 2, Level crossing**
- Crossing gates are lowered to close road traffic for trains passing during certain hours (e.g., rush hour)
  (This class no longer exists in Japan)

**Class 3, Level crossing**
- An alarm is installed to signal the approach of trains.

**Class 4, Level crossing**
- A crossing other than above classes.
  There are still some Class 4 level crossings, that is without crossing gates or alarms, mainly in rural areas.
Countermeasures for Class4 crossings

Along with upgrading to Class 1 crossings, we are considering combining or eliminating of level crossings.
Countermeasures for Class4 crossings

Barriers will continue to be installed to prevent entry of automobiles and to encourage pedestrians and bicycle riders to stop before crossing.
Countermeasures for Class 4 crossings

Signboards to alert pedestrians

Installed all class 4 crossings
Trend in the number of level crossing accidents

Number of level crossing accidents

Number of level crossing obstruction detectors

Number of emergency train stop buttons

Fiscal year

Fiscal year
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Education for pedestrians at level crossings

• We have been implementing the “Campaign for Zero Level Crossing Accidents” every year since 1991.
Education for pedestrians at level crossings

• Despite efforts, in October 2013 a woman was killed in a level crossing accident.
• The woman was hit and killed when she tried to help a man who was trapped on the tracks.
• In this accident, another man pressed the emergency train stop button, but not in time to stop the train before it passed through the crossing.

Reference: Asahi Shimbun (October 2, 2013)
Education for pedestrians at level crossings

Reference: Nippon Television Network "news every." (October 1, 2013)
Regarding this accident, we conducted a campaign to make an appeal for the following three points for pedestrians at level crossings.

① Do not start crossing after the warning starts to sound.
② Press emergency button as soon as you notice anything unusual on the tracks in the crossing.
③ Do not enter the crossing once you have pressed the emergency button.
Education for pedestrians at level crossings

"Campaign for Zero Level Crossing Accidents"
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Pursuing “Ultimate Safety”

- Since the establishment of JR East, safety has been our top priority, and we have worked relentlessly to raise our levels of safety.
- The pursuit of safer measures can never end.
- We will continue to implement the efforts for level crossing safety in cooperation with pedestrians, car drivers, and the community in general.
- We will continue to work tirelessly to improve safety by pursuing our goal of “zero accidents involving passenger injuries or fatalities and zero accidents involving employee fatalities (including employees of Group and partner companies).”

Ultimate Safety
General Principles of Safety
① Safety is the most important mission in transportation.
② Safety is ensured by proper observance of rules and procedures, and is achieved through constant practice.
③ To ensure greater safety, it is most important to properly verify the situation and keep in communication.
④ To ensure safety we must cooperate and go beyond our official responsibility.
⑤ When we have questions or must choose among several options, we should remain calm, think by ourselves, and take the safest course after thorough consideration.

Thank you for your attention