

Part 2 Railway Transport

Chapter 1 Railway Traffic Accident Trends

1 Operating Accidents over Recent Years

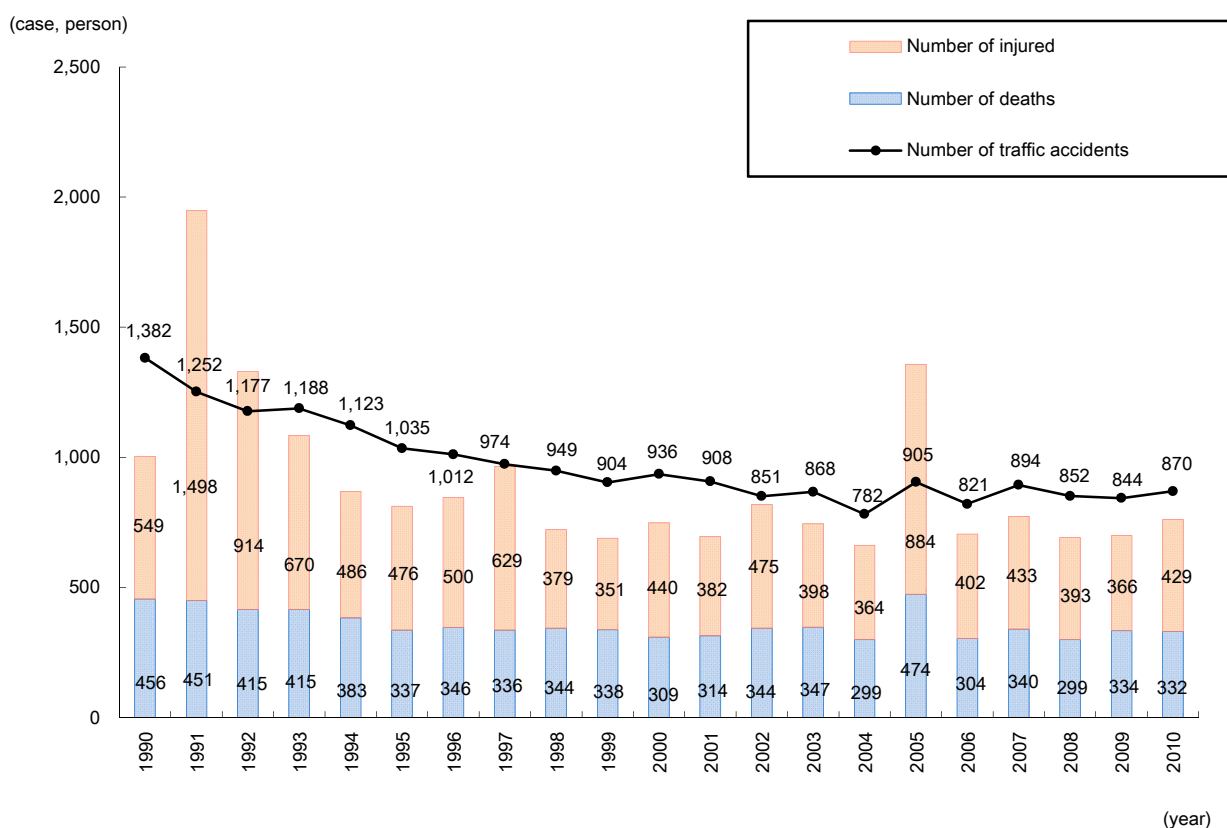
(1) Railway operating accidents² have been on a long-term decline, and although there were 1,382 in 1990, in 2010 there were 870 incidents.

(2) There were 760 injuries and fatalities resulting from railway operating accidents (including 332 fatalities), which indicated 8.6% increase from the previous year.

(3) Accidents at railway crossings decreased by 4.0% to 314, of which operating accidents accounted for roughly 36.1%. 250 fatalities resulted from those accidents, which was 16.3% higher than the previous year.

(4) One major accident (there were over 10 fatalities and injuries, and over 10 cars derailed in the accident) occurred in 2010 on January 29th with JR Hokkaido Hakodate line from Fukagawa Station to Moseushi Station, when the disaster of train colliding with a lorry at the road-crossing, causing train derailment and injuring 45 passengers.

Changes in Railway Operational Accidents and Casualties



Notes: 1. Source: Ministry of Land, Infrastructure, Transport and Tourism
2. Fatalities are defined as deaths occurring within 24 hours of an accident.

² Operating accidents - Train collisions, derailments, train catching fire, accidents at rail crossings, accidents along other roads, railroad accidents resulting in injury or death (other than from the foregoing five types of accidents), and accidents resulting in material damage to property (other than from the foregoing six types of accidents). Street rail accidents are defined in the same manner as railway operations accidents.

Chapter 2 Overview of Current Railway Traffic Safety Measures

1 Improvement of Railway Environment

○ Improving Operational Safety Devices

Based on the technical criteria amended with regard to the JR West Fukuchiyama Line train derailment accident, improvement such as ATS is being promoted for curves, turnouts, feed lines, and others that have the risks of causing a serious accident.

○ Strengthening of the Earthquake Resistance of Railway Structures

Seismic strengthening of the elevated bridges of the Shinkansen and conventional lines were promoted. Furthermore, in preparation for the next expected large-scale earthquake, the emergency implementation of seismic strengthening was also carried out in primary stations that function as bases for emergency personnel transportation.

2 Ensuring the Safe Operation of Railways

○ Improvement of Educational Programs for Train Crews and Safety Specialists; Enhancing the Basic Competence of Personnel

In order to ensure the quality of power car operators, a power car operator license examination has been carried out. Also, in order to retain the quality of the crew, operation management instructed to take appropriate measures regarding education.

○ Improvement of the Management of Train Operations and Crews, etc.

In order for the crew to grasp the situation swiftly and act accordingly where an accident occurs, they have been instructed of the improvement of recovery systems, proper information provision for the crew, and ensuring alternative transport methods. Furthermore, railroad operators have given guidance to exert themselves in safety management and grasping of psychosomatic state of crewmembers at work, so that the crew will fulfill their duties and ensure safe operation, while also raising the safety consciousness of the crew.

○ Implementation of Operating Safety Auditing of Railway Companies, etc.

For the purpose of ensuring safe railway operation, security auditing has been implemented for railway operators based on railway operation laws. Audits were carried out 65 times in 2009 for 52 operators, and governmental guidance through documents requesting improvement was carried out in 36 cases for 34 operators regarding initiatives for the safety and security of transport, management of facilities and vehicles, operation handling, and education training for crew members.

In addition, according to the “Transport Safety Management System” introduced in October 2006, a safety management system was established by the operators, which was taken action by management executives to on-the-site workers as a whole. The country carried out the evaluation for transport safety management to 673 companies by the end of December 2010 to confirm the status of implementation.

Topics

Safety Measures on Platforms

○ With the aim to improve the safety of all users of the stations, starting with the visually impaired, installation of platform doors (including platform gate (movable)) is being promoted to prevent falling onto rail tracks (installations were made at 449 stations on 38 lines, at the end of March, 2010).

The "Study Group for the Promotion of Platform Doors Improvement" consisting of members from the Ministry of Land, Infrastructure and Transport as well as train operators has been launched, is currently considering the development policy plan and is also deciding to promote further development based on the results.



Platform door



Platform gate (movable)

○ As a safety measure for the prevention of falling from the platform accidents, for platforms with a high number of per hour train operations and high speed trains*, administration is instructed to develop installations of falling detection mats or emergency stop push buttons and evacuation spaces under platforms.

○ As of March 31, 2010, regarding the falling detection mats or emergency stop push buttons, measures were implemented for 1,881 stations out of the targeted 2,074 stations (91%), while regarding the evacuation space under platforms, measures for all of the targeted 2,074 stations were implemented.



Emergency stop push button



Falling detection mat



Steps to go up the platform



Evacuation space under a platform

*For platforms where the approaching speed of trains to the platform and is about 60km/h, and furthermore for platforms where the operation number of passing or stopping trains is about 12 trains per hour.