

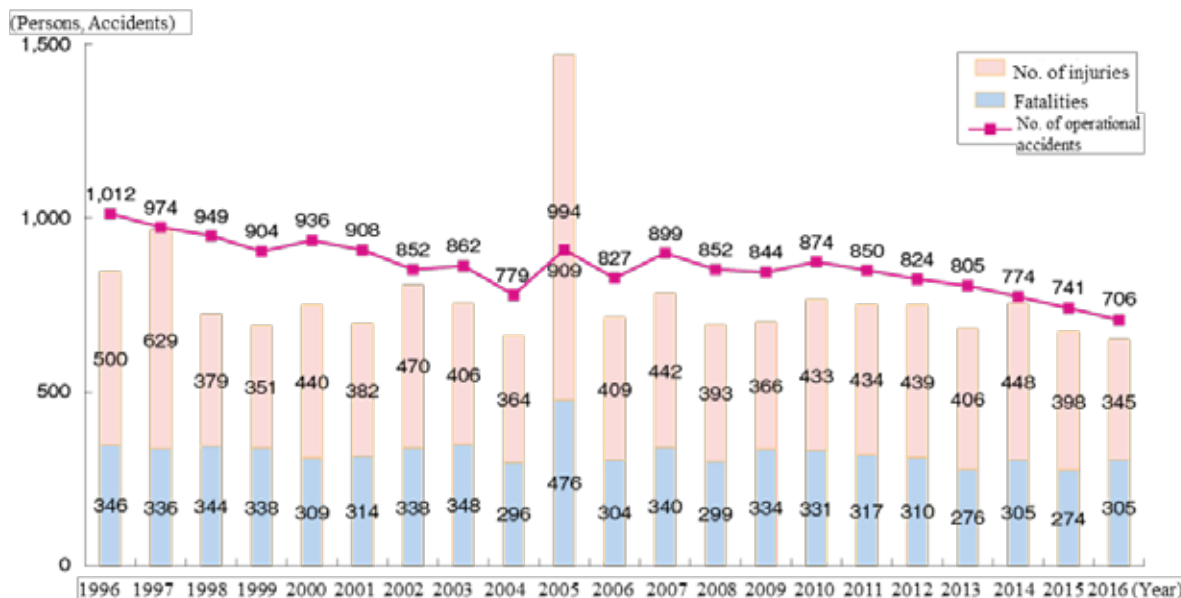
Part 2 | Railway Transport

Chapter 1 | Railway Traffic Accident Trends

1 Operational Accidents over Recent Years

- The number of operational railway accidents* has been in a long-term decline. There were 1,012 accidents in 1996 and the number fell to 827 in 2006, 706 in 2016 decreasing by 4.7%.
- , The number of fatalities in driving accidents was 305, an increase of 11.3 % but the number of fatalities of passengers was none.
- f The number of accidents at railway crossings* is in a decreasing tendency. There were a total of 229 accidents in 2016, a 5.0 % decrease of over the previous year and the number of fatalities at railway crossing was 103, a 7.3 % increase over the previous year.
- m A total of 5 passengers in the train and 24 passengers in the bus were injured when a bus that had broken the railroad crossing collided with a train at the railroad crossing of the first class between the Tenryuu Hamanako Line Sakuragi Station ~ Ikoinohiroba Station of Tenryu Hamanako Railway on April 19, 2016.

► Chart 1-44 Changes in the number of operational accidents and casualties



Note:

1. Source: Ministry of Land, Infrastructure, Transport and Tourism
2. The number of fatalities was registered within 24 hours after accidents.

* Operational accidents

Operational accidents include accidents caused by collision, derailment, fire, crossing obstruction, road obstruction, accidents causing injury or fatality and property damage. Incidentally, operational accidents on railway tracks are treated as operational railway accidents.

* Accidents at railway crossings

Accidents at railway crossings refer to the train accidents where a train or vehicle collide or make contact with a pedestrian or another vehicle at railway crossings and the accidents involving injuries that occur at railway crossings.

Chapter 2 Overview of Current Railway Traffic Safety Measures

1 Improvement of Railway Environment

1 Improving Operational Safety Devices

Based on the JR Fukuchiyama Line Train Derailment Accident, "Ministerial ordinance that provides technical standards for the railway" was revised in July, 2006 and it was made mandatory to install automatic train stop (ATS) with speed limit function, a train stop system in case of abnormal driver and driving state monitoring device. Maintenance was completed by the end of June, 2016 though the time limit for the maintenance was provided based on the law.

1 Strengthening of the Earthquake Resistance of Railway Structure

In light of the Hanshin-Awaji Earthquake and the Great East Japan Earthquake and in preparation for capital epicentral earthquake and Nankai Trough Earthquake which are the immediate problems in the strengthening of disaster prevention and disaster mitigation, aseismic measures were promoted in the main railway stations and viaducts in order to ensure the safety of railway users and in consideration of public function as temporary shelters and securing of emergency transport ways.

● Reinforcement of Measures for Safety Improvement on Station Platform

The maintenance of the platform door (Contained the movable type platform fence) that is highly effective as a facility to prevent the fall of all station users including visually impaired persons from the platform was promoted (Established at 665 stations at the end of March, 2016). In addition, "Railway Utilization Manners UP Campaign" was executed to encourage positive friendly greetings by other travelers to persons with visual impairment.

There was a fatal accident due to falling of a visually impaired person on the tracks in Tokyo metro Ginza Line, Aoyama-Ichoume Station in August, 2016. In response to that, a "Review meeting for the safety improvement on the station platform" was held and overall measures consisting of both hard and soft measures were summarized by station employees in December 2016 in order to prevent recurrence. Hard measures focused on acceleration of maintenance of platform doors and dot-braille block with inward line and soft measures focused on guidance on boarding and getting off were put together by the station employee.

2 Dissemination of Knowledge about the Safety of Rail Traffic

In addition to conducting campaigns to prevent accidents at railway crossings using posters and others, dissemination of knowledge and awareness-raising on the manner to safely cross railroad crossings and on the prevention of railway accidents were conducted for schools, residents along the railway tracks and road transport operators among others. Furthermore, it was recommended to railway operators and others to take measures for accident prevention making use of the railway safety guidebook.

3 Ensuring the Safe Operation of Railways

| Retaining the Quality of Train Operators

To ensure the qualifications of train drivers, driving license tests were conducted in an appropriate manner. It was also instructed to operation administrators to adopt adequate measures for education to ensure the qualification of the crew.

| Sharing and Use of Trouble Information on Safety

The railway safety liaison conference was held by safety in-charge of main railway operators and information on accidents and measures for preventing recurrence thereof was shared and information was collected so that trouble information on safety can be shared between concerned parties and can be promptly notified to railway operators. In addition, it is intended to share trouble information, which is not a compulsory to report to the government, among railway operators.

| Appropriate Response in Cases of Large-Scale Accident Occurrence

In order to cope with emergency situations such as a large accident or a disaster, procedures were taken to check and validate the emergency contact system at night and on a holiday which enables the establishment of contact with relevant persons in the government and railway operators in a quick and appropriate manner.

In addition, railway operators were instructed to provide appropriate information to railway users and establish systems to quickly restore services in case of accidents including transportation failure with a view to reducing social impact in major cities and trunk railway lines.

Moreover, regarding the Tsunami countermeasures for the railway, in addition to the verification of the evacuation guidance situation at the occurrence of tsunami in the Great East Japan Earthquake, response policies and specific examples designed to secure safety of railway passengers at the occurrence of a tsunami based on the basic ideas of evacuation (quick and early evacuation is the most useful and important reassurance, etc) from the largest class tsunami such as the Nankai Trough Gigantic Earthquake have been compiled to encourage railway operators to follow the effort.

| Enhancement of Transport Safety Management System

The evaluation of transport safety management whereby operators build and improve a safety management system in a concerted effort with all employees and the government checks its implementation status was conducted to 68 companies in 2016 in accordance with the “Transport Safety Management System” introduced in October, 2006.