

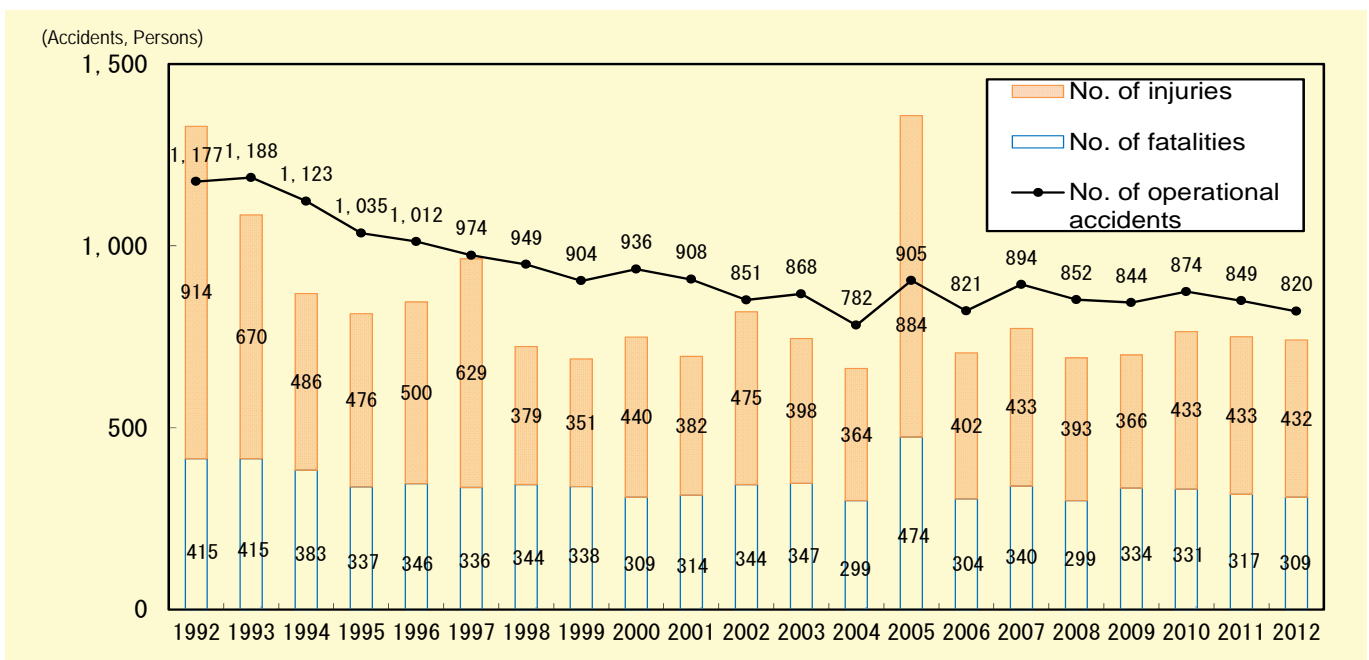
## Part 2 Railway Transport

### Chapter 1 Railway Traffic Accident Trends

#### 1. Operational Accidents over Recent Years

- ① The number of operational railway accidents\* has been in a long-term decline. There were 1,177 accidents in 1992 and the number fell to 820 in 2012.
- ② The number of casualties in operational accidents was 741 (fatalities numbered 309) in 2012, a decrease of 1.2 % over the previous year.
- ③ The number of accidents occurred at railway crossings was 302, a decrease by 6.5% over the previous year accounting for 36.8% of the total of operational railway accidents. In addition, the number of casualties was 200, a 3.8% decrease over the previous year.
- ④ A total of three grave accidents (where there are 10 casualties or more, or there occurs a derailment of 10 cars or more) occurred in 2012, including the derailment accident that occurred between the Oihama station and Keikyu-Taura station in the Keihin Express Main Line on September 24 in which 55 people got injured.

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 accident.

\* Operational accident

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.

## Chapter 2 Overview of Current Railway Traffic Safety Measures

### 1. Improvement of Railway Environment

- **Improving operational Safety Devices**  
Based on the technical standards revised in the wake of JR Fukuchiyama Line Train Derailment Accident, installation of automatic train stop devices (ATS) and other measures were facilitated and promoted to the places such as curves, turnouts, track ends, and so on where serious accidents are likely to occur.
- **Strengthening of the Earthquake Resistance of Railway Structure**  
Reinforcement of viaduct pillars of the bullet train tracks as well as conventional railway lines against earthquakes was promoted. In addition, in preparation of large scale earthquakes expected to occur in the future, quake-resistant reinforcement was implemented at main railway stations which play a key part in emergency transportation in an urgent manner.

### 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 and the educational materials designed to promote safety education on the use of railways for children.

### 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.
- **Analysis and Utilization of Risk Information**  
In order to prevent serious railway accidents, information on the past incidents and accidents is collected to be shared among interested people. In addition, it is intended to share risk information which is not a compulsory report to the government among railway operators.
- **Enhancement of Transportation Safety Management System**  
The “Transport Safety Management System” was introduced in October 2006. Under the system, business operators were encouraged to make a concerted effort among all personnel in building safety management system under the leadership of top management and the government conducted the evaluation of the status of its implementation on a total of 930 companies by the end of December 2012, an increase by 116 in implementation over the last year.
- **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 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.