Social

## What is the JR East Group's concept and system to ensure railway safety?

JR East has made safety the top management priority since our establishment, and has taken various measures for that purpose. We are making group-wide efforts to build a safety management system, with the aim of becoming the world's safest railway operator.

### Our concept of safety

#### Four aspects of safety

As a railway operator, safety is our absolute top priority.

Operating trains safely is our responsibility to society. JR East believes that safety is ensured through our management that synergistically links safety equipment, employees, and rules. We therefore are constantly reviewing and improving our management programs in order to ensure that these are properly linked.

#### Safety initiatives in medium-term management plan

In the JR East New Frontier 2008 mediumterm management plan, the top management challenge is to "continue relentless efforts to provide safe and reliable transportation." The New Frontier 2008 then sets targets to achieve our safety plan within four years.

#### Safety Plan 2008

Safety Plan 2008

Fatalities or injuries

'03

Train collisions

Since our establishment, JR East has continually created and implemented safety plans with ever-higher safety goals. By installing safety equipment according to our plans and raising safety awareness of each of our employees, we have succeeded in reducing the number of railway accidents to about one third the prior level.

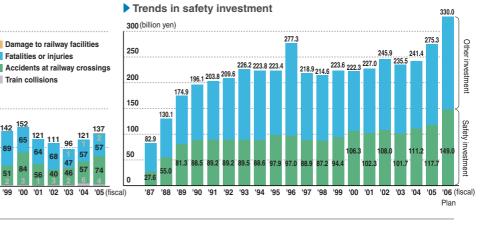
The Safety Plan 2008 is our fourth fiveyear safety plan, which began in fiscal 2004. It sets the target of reducing accidents causing injuries and fatalities to our customers and employees (including those of our Group companies) to zero. In order to accomplish this, we are revising and rebuilding our safety programs from the ground up.

#### Trends in railway accidents

In fiscal 2005, we had 137 railway accidents, up 16 from the previous fiscal year. Of these, four were train collusions, including the accident on the Uetsu Line (see page 9); two caused damage to railway facilities; 74 were at railway crossings; and 57 resulted in fatalities or injuries. In particular, the number of railway-crossing accidents rose by 17.



Trends in railway accidents



376

300

200

100

315

287

# 400 (Number of accidents)

240 247

168 165 164

#### Safety management

#### **Basic concept**

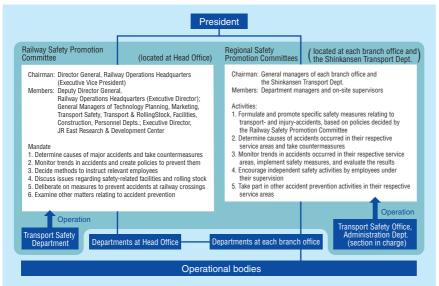
In order to improve safety, it is necessary to accurately determine the causes of accidents by correctly ascertaining the root cause of the accidents, and implement preventive measures. JR East is in the process of building a management structure to put this initiative into practice.

#### Railway Safety Promotion Committee

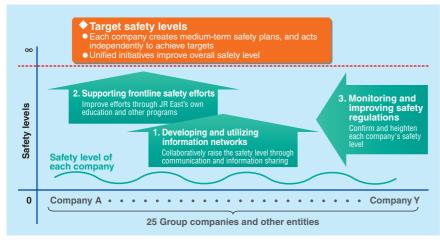
JR East has established the Railway Safety Promotion Committee at our Head Office, chaired by the Executive Vice President. The committee reviews basic policies to respond to and prevent accidents, and promotes safety measures in the railway business.

There are also Regional Safety Promotion Committees at each branch office and the Shinkansen Transport Dept., chaired by

#### Safety promotion network



#### JES-Net25



general managers of branch offices and the department. These committees implement specific measures in collaboration with the Railway Safety Promotion Committee, and determine the causes of accidents, implement concrete measures to prevent accidents, and promote safety activities in their respective service areas.

#### Committee for Improving Transport Reliability

JR East has created the Committee for Improving Transport Reliability with the mission of building a higher-quality railway system. Based on the approach that improved transport reliability helps to raise the level of safety, the committee strives to resume operations as quickly as possible after ensuring safety.

#### **JES-Net25**

As the operations of JR East and our Group companies grow increasingly integrated, we are faced with the necessity to ensure safe railway operations with a common set of safety values. In order to accomplish this, in fiscal 2004 we established the JR East Safety Network 25 (JES-Net25), a network of 25 Group companies and other entities engaged in train operation-related works or construction projects for promoting safety.

JES-Net25 promotes activities based on three core principles: developing and utilizing information networks; supporting frontline safety efforts; and monitoring and improving safety regulations and each company's safety level. We are committed to heightening the safety level of the JR East Group through the united efforts made by each company in JES-Net25. Preparedness for major earthquakes

Learning the lessons from the Great Hanshin-Awaji Earthquake in 1995, we have reviewed our earthquake measures, creating the Major Earthquake Response Manual that envisions an earthquake in the Tokai region or a subterranean earthquake in the Tokyo Metropolitan Area, and we continually revise and update this manual. The manual lays out our core response actions to take. These include independent emergency relief activities by each employee in accordance with the manual in case of an earthquake with a seismic intensity of lower 6 or above on the Japanese scale in our service areas, and central coordination of response efforts by setting our the response headquarters in the Tokyo and Takasaki branch-office buildings. We carry out practical disaster-preparedness drills every year in line with the manual on September 1, Japan's National Disaster Prevention Day.



A total of 15,000 JR East employees and others attended our disaster-preparedness drills in fiscal 2005.

#### Safety research regime

We are researching and developing a wide range of safety technologies and systems, with the aim of even greater safety.

The activities of the JR East Research & Development Center include research into human factors in accidents through an understanding of the characteristics of human behavior; unveiling of the mechanisms of Shinkansen and other train derailments, and searching of measures to prevent them; and development of seismicresistance techniques for bridges and other construction methods.

Additionally, following the Uetsu Line accident, we set up a Disaster Prevention Research Laboratory at the center. The laboratory is conducting research on natural phenomena such as strong winds, earthquakes, and on countermeasures against them in order to prevent railway accidents due to natural disasters.

#### Response to the revised Railway Enterprise Law

In response to a mounting number of transportation accidents and other problems, the Japanese Diet passed the revised Railway Operation Law in March 2006, which came into effect in July. We are preparing the

#### Safety training programs



Conductor training Transportation cotrol training etc.

#### Facility training programs: 1,900 participants

Maintenance vehicle chief training Accident prevention training Field-specific technology training etc.

Safety culture and safety instructor training programs: 400 participants

Challenge Safety Campaign promoter training Safety standards expert training Safety instructor training Transport accident data analysis training etc.

General Training Centers at each branch office: subtotal 11,900 participants

Total: 16,000 participants

required systems in accordance with the relevant laws and ordinances.

### Safety education

#### Safety education system

JR East regularly holds seminars and training courses regarding our safety systems and rules at the JR East General Education Center in Shirakawa City, Fukushima Prefecture, and the General Training Centers at each branch office.

About 16,000 employees took part in such seminars and training courses in fiscal 2005.

#### Learning from accidents

Most rules and equipment for ensuring railway safety are prepared based on lessons learned from tragic accidents in the past. We have established the Accident History Exhibition Hall at the JR East General Education Center that displays overviews of past accidents, measures taken, and the like. The objectives of the hall are to ensure that past accidents are never forgotten and instill a culture of learning from accidents at the workplace, preserving the valuable lessons learned from past sacrifices. The hall is also used as a venue for employee training.



The Accident History Exhibition Hall has been established to help our employees preserve and learn from experiences of past accidents.

# Creating a culture of safety

#### Creation of a culture of safety

Railway safety is maintained by linking trains, railway lines, electric generators, railway signals and other equipment with the people who operate them in a systematic and rational manner. In other words, safety is preserved only when all employees correctly understand our safety systems, and practice their fundamental operations without fail each day. In order to further raise our safety level, it is vital to uncover the roots of potential accidents hidden in near misses, and take preventive measures.

JR East has a number of safety programs in order to instill a culture of safety at the workplace, including our Challenge Safety Campaign and Head Office Safety Campaign.

#### The Challenge Safety Campaign

In 1988, we started the Challenge Safety Campaign aimed at encouraging our employees to proactively take on the challenge of further improving our safety level, rather than just passively maintaining safety. Through this new safety campaign, we strive to foster professional judgment and knowledge at the workplace, and create a corporate culture in which each employee can remain constantly aware of safety and



Discussions were held on safety at the workplace through the Challenge Safety Campaign. safety Campaign.

act on this awareness. We are carrying out the campaign by taking three phases into consideration. First, each employee identifies safety challenges from his or her dayto-day work. Next, the employees discuss these challenges and set action targets for improvement. Finally, they work toward attaining targets each day.

#### Head Office Safety Campaign

We run the Head Office Safety Campaign once a year. Where executive officers from the Head Office and front-line employees hold direct discussions, and use the results to implement concrete measures to further improve safety. The results of these discussions have helped set up many project teams and implement a large number of measures. In fiscal 2005, we worked to improve worksite management capabilities, with the theme "What are the safety weaknesses at your workplace?" through the campaign.

Each of our branch office also independently holds discussion sessions between managers and front-line employees.

#### Railway Safety Symposium

Since 1990, we have held the Railway Safety Symposium for the purpose of improving each employee's awareness of safety, and vitalizing various efforts to improve safety, including the Challenge Safety Campaign. In fiscal 2005, the symposium was attended by about 700 people, including employees of JR East and our Group companies.

We have also invited outside experts to the symposiums for panel discussions and the case study presentation on other companies' initiatives.

# Cooperation from stakeholders for safety

The cooperation from our customers and community residents is essential to ensure safety at our stations, platforms and railway crossings. Thus in 1999, we began a yearly Platform Safety Campaign aimed at ensuring safety at our stations and platforms by using posters urging passengers to stay behind the yellow line. In the summer of fiscal 2005, we ran this campaign for one month within a 100-km radius of Tokyo.

We have also carried out the Railway Crossing Accident Prevention Campaign, in which we have asked drivers and pedestrians transiting through railroad crossings for cooperation.



We have asked our stakeholders for cooperation in making railway crossings safe.

#### Formulating our next safety plan

Every five years, JR East reviews our safety plan to identify priority issues and implement safety measures in a planned way. Putting our *Safety Plan 2008* into practice, we have started to identify issues for the preparation of our next safety plan.