

Challenges for Safe and Stable Transport Services

Each employee must address safety issues seriously to build more accurate railway system. We must learn from accidents, determine their causes, and make proactive efforts to prevent their recurrence.



Kenji Horioka

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Transport Safety Department, Railway Operations Headquarters

"As a railway company, it is our greatest mission to provide safe and stable transportation."

"Safety Plan 2008" – Returning to the Fundamentals to Reexamine Safety Issues

Kenji Horioka, Manager in the Transport Safety Department says that the company has needed to reassess "safety," its most valuable asset, due to the stricter social standards that are being applied to the industry. "That is the major objective in initiating the 'Safety Plan 2008,' the latest five-year safety plan."

▶ Brochure describing "Safety Plan 2008," the new five-year safety plan



▶ A solid basic operation ensures stability and safety

During the 17-year period from its foundation up to 2003, JR East has formulated and carried out three 5-year safety plans, investing a total of 1,400 billion yen. As a result, railroad accidents have fallen by 75% from 376 in FY 1987 to 96 in FY 2003.

However, worrisome factors that may or may not directly cause accidents still exist. To eliminate such "seedlings of accident" and to fulfill the CSR as a railway company, JR East is reminding itself that the "safety" is one of its most important management assets and continuing its effort to build a railway system that delivers higher quality service.

Stable transport is crucial to ensure safety

"Safety depends on the smooth interplay of 'people,' 'equipment' and 'regulations.' In other words, hardware and software are both essential," says Horioka.

In terms of "hardware," JR East is reinforcing and expanding the maintenance of its automatic train stop (ATS) system, and is enforcing measures to prevent railroad crossing accidents. As a new addition, JR East is expanding its "System for Halting All Trains in the Event of an Earthquake" to include areas outside of the metropolitan area. This system automatically stops train operations in affected areas when an earthquake with a magnitude higher than 6 on Japan Meteorological Agency (JMA) seismic intensity scale occurs. The "Image-Processing Type Fall-Detection System at Station Platforms" is another new technology currently being introduced. The system alerts oncoming trains of

▶ Railroad overhead crossings on the *Saikyo* and *Yamanote* Freight Lines at Ikebukuro Station to ensure safe, stable transport, and to improve the transport ation network

obstacles along their paths by using two cameras that allow 3D detection of the obstacles.

In terms of “software,” stopping trains in the event of an accident is a basic safety procedure but recovering to normal service as quickly as possible after the accident is also essential to maintaining safety because a system that operates erratically can lead to non-standard behavior and become a possible source of human error. Recognizing the above, JR East has set up a Committee for Improving Transport Stability to investigate the cause of accidents and devising methods for speedy recovery to enable early resumption of normal services.

Reviewing rail-rerouting work

A large-scale rail-rerouting project took place between Mitaka and Kokubunji Stations on the *Chuo* Line on September 27th, 2003 to replace the complicated multiple railroad crossings with overpasses. The completion of this work was considerably delayed. As a result, the 7-hour cancellation of services ensued great inconvenience to 180,000 passengers in the surrounding areas. Following this, the Review Committee for Large-scale Rerouting Work was set up to thoroughly investigate causes and risks involved in such projects and to come up with countermeasures.

To make sure that rail-rerouting work at Urawa in May 2004 was completed within the time limit, efforts were made to finish all construction work ahead of schedule. Later in June, all sorts of technologies were mobilized in the preparatory phase of a two-day rail-rerouting project in Ikebukuro to minimize risks. An evaluation meeting was held after the completion of work and a system was set up to utilize the ideas and opinions raised at the meeting for further improvement in the next construction project.



Esao Arakawa

Manager, Area & Infrastructure Development Group,
Construction Department

“We strive to make sure that trains are on schedule and devise measures to deal with delays when they occur.”

In FY 2004, a great number of large-scale construction projects will be carried out, starting with the rerouting of tracks at Shinjuku Station, the largest station in metropolitan Tokyo. Esao Arakawa, Manager of the Construction Department says with confidence that “lessons learned from past troubles have helped us set up a system that systematically checks construction conditions from many angles to minimize risks.”



▶ A test run after completing construction



▶ Final checks are carried out thoroughly.



▶ Rail rerouting site in Urawa; workers tensely await roll call.