Measures for reducing transport disruptions in the Tokyo metropolitan area

Enhanced reliability, early resumption of service, and provision of information

In spring 2006 in the Tokyo metropolitan area, a series of large-scale disruptions to our services occurred, inconveniencing many of our customers.

In May 2006, JR East established "the Tokyo Metropolitan Transport Disruption Prevention Project" to investigate and implement measures for reducing transport disruptions.

JR East deeply regrets the series of major service disruptions in spring 2006. We regard it as a serious issue reflecting on the reliability of our service. We have been working to establish a transport system with high reliability and safety and to implement effective measures for the prevention of service disruptions.

Based on the results of the investigation, in addition to the initial transport disruption measures implemented (costing approximately 160 billion yen), in fiscal 2006 we commenced the initiatives described below, investing a total of approximately 300 billion yen into initiatives for the prevention of service disruptions.

Major disruptions to service occurred in the Tokyo metropolitan area in spring 2006

Date	Content	Time affected	NO. of passengers affected
April 24th (Mon.)	Track irregularity on the Yamanote Line between Shin Okubo and Takadanobaba stations	Yamanote Line operation suspended for approx. Shours 40 min.; Saikyo Line operation suspended for approx. 7hours 30 min.; Shonan Shinjuku Line operation stopped	Approx. 320,000 passengers
April 28th (Fri.)	Signal trouble on the Keihin Tohoku Line be- tween Okachimachi and Ueno stations	Approx. 2 hours 40 min.	Approx. 85,000 passengers
April 30th (Sun.)	Point failure on the Chuo Line in Shinjuku station	Operation suspended approx. 1 hour 50 min.	Approx. 13,000 passengers
May 9th (Tue.)	Electric power outage on the Joban Line be- tween Kanamachi and Mabashi stations	Operation suspended approx. 40 min.	Approx. 42,000 passengers
May 11th (Thu.)	Signal trouble on the Keihin Tohoku Line between Kamata and Tsurumi stations	Operation suspended approx. 4 hour 10 min.	Approx. 145,000 passengers

Enhancement of transport reliability

To improve transport reliability, we are planning to introduce a new control system, Autonomous Decentralized Transport Operation Control System (ATOS). The system will be able to determine train operation situations in real time and achieve precise traffic control for more reliable operation management.

We are progressively introducing a new more reliable railcar type, the "E233 Series". High reliability is achieved by the duplication of major items of equipment, so that train operation will continue even if one item fails. Trains on the Chuo Line rapid service are being replaced in stages by this new series. We also plan to introduce the E233 railcars to the Keihin Tohoku Line and the Joban Line in the future.

We are also taking measures to reduce disruptions to transport service by making ground equipment less vulnerable, through the use of stronger cables for the signal system and by installing dual systems. In addition, we have strengthened inspection and mainte-

nance operations by increasing the number of rail inspection cars.

To avoid mishaps caused by track deformation from tunneling or construction of roads under tracks, we established a "Safety committee for construction of



tracks, we established a Safety The E233 Series, with duplication of major committee for construction of equipment to increase resistance to failures

crossings under tracks". The committee thoroughly investigates the possibility of track deformation and draws up systematic track deformation prevention measures for carrying out construction.

Early resumption of operation after service disruptions

In addition to our work to prevent service disruptions, we have also made improvements for early and smooth resumption if disruptions do occur.

Within a 50km radius of the Tokyo metropolitan area, we are taking measures for the faster detection of abnormalities, reducing the arrival time to the site of the fault, and faster completion of recovery work. To achieve these ends we are strengthening the monitoring conducted by signalling and telecommunication commands and developing a round-the-clock rapid response system in partnership with signalling equipment manufacturers.

Furthermore, to enhance the knowledge and skills that our staff requires to handle the new equipment, we are expanding and improving our training facilities to better serve track maintenance, electricity, and signaling and telecommunication. In addition, we have increased our stocks of spare parts to promptly replace faulty equipment and shorten recovery time.

Enhancement of information provision

We are working on smoother transmission of information between our employees so that they can better inform our customers during transport disruptions.

In February 2007, we began installing 50-inch screens for the "display of information during transport disruptions" at the ticket gates of 19 major stations. Information about a trouble spot is displayed in an easy-to-understand map format along with the necessary information for transferring to other lines. By fiscal 2008, we plan to install the displays in a total of approximately 90 stations. In addition to providing traditional text information by LED displays at ticket gates, on platforms, and inside trains, we are striving to pro-

vide accurate and prompt information guidance to our customers.

Apart from these measures, we are providing information over the Internet to personal computers and cell phones and issuing "train delay certificates" for download through our web site.

In addition to replacing and expanding public-address systems at approximately 200 stations, we are also installing wireless communication equipment in 150 stations to help our station employees receive and disseminate accurate information.



Large display in stations for guidance during transport disruptions



Sample image from the information display