

# Feature

## **Through Train Services in Large Cities**

- Through Service Between Tokyu Toyoko Line and Tokyo Metro Fukutoshin Line: Overview and Effects
- Through Service between Railway Operators in Greater Tokyo
- Through-Train Services: A Comparison between Japan and Europe

## **Maintenance of Railway Infrastructure (part 2)**

Maintenance and Management of JR East Civil Engineering Structures

### **Special Feature**

- Changes in Japanese Travel Behaviour and Walking Tours from Train Stations
- International Conference of Railway Museums
- Hosting ISO/TC 269 Second Plenary Meeting in Japan

63

Mar. 2014



# JAPAN RAILWAY & TRANSPORT REVIEW

March 2014 No. 63

Published by **East Japan Railway Culture Foundation** (EJRCF)

2-2, Yoyogi 2-chome, Shibuya-ku,

Tokyo 151-0053, Japan Tel (81 3) 5334 0623 Fax (81 3) 5334 0624 Email feedback@irtr.net

Chairman: Satoshi Seino

#### **Chief Editor:**

Kunio Aoki

#### **Editorial Board:**

Yoshihiro Akiyama, Director, Japan International Consultants for Transportation Co., Ltd.

Mami Aoki, Professor, Doshisha University

Makoto Ito, Director, Planning Division, Japan Institute for Transport Policy Studies

Yasunari Nakajima, Deputy General Manager, Technology Planning Department, East Japan Railway Co. (JR East)

Hideki Nemoto, Deputy General Manager, Management Administration Department,

Toshiyuki Aoki, General Manager, Planning Division, Railway Technical Research Institute

#### **Consulting Editor:**

Tatsuhiko Suga

#### **Editorial Staff:**

Robert Hancock Koji Tomita Mizuki Abe

#### **Editorial Design:**

Keiichi Aimono

#### Translation & Production:

ALAYA INC.

© All rights reserved. Reproduction of the contents in part or whole of this magazine in any manner is prohibited without the prior written consent of EJRCF. JRTR is printed in Jaoan.



Construction to switch to underground track near Daikanyama Station (Tokyu Corporation)

#### **Urban Railways and Through Services**

Urban railways in Tokyo and Osaka are characterized by a multiplicity of operators, including companies in the JR group, multiple other private railways, local governments, and the third sector. Taking a broad view across an entire metropolitan region where commuter flows cross multiple prefectures and municipalities, it could indeed be the case that more than 10 distinct railway operators are combined to form a single rail network. In the early years of urban railways, transport services were provided in a format where urban peripheral rail services run by the government were combined with tram services that linked the inner urban areas. As populations increasingly clustered in urban areas, cities expanded and the process of urbanization spread to suburban regions. Scenting the chance to make a profit by linking urban peripheral railways to these growing suburbs, Japanese entrepreneurs sought to emulate Cornelius Vanderbilt, 'King of the Railroad' in the USA, and invested in urban railways. The result was the formation of a wider rail network in large cities. With the spread of automobiles, trams were replaced first by buses, and then, as traffic congestion and environmental issues came to the fore, there was a switch to underground railways. In this way multiple operators appeared on the scene and heavy rail became the mainstay of urban railways. When underground railways appeared, there was a move to link the suburban railways, which had expanded out to areas beyond peripheral railways, to the centrally located underground railways, ensuring better convenience by provision of through-service trains. Through services eliminated the need for transfers, reducing the physical burden on passengers as well as travel times. However, transferring between the lines of different operators meant that the fares of each operator were added, resulting in an outstanding issue where the fare was considerably more than if the same journey had been made on the lines of a single operator. Economic theory suggests that companies move from competition in markets to create oligopolies and then monopolies. However, in the case of railways in major cities, companies' diversification of business operations has strengthened their business base and they continue to operate as before in an era of competition, without cutbacks or curtailment of services.

K. Aoki

### **CONTENTS**

#### Feature 1: Through Train Services in Large Cities

	Inrough Service Between Tokyu Toyoko Line and Tokyo Metro Fukutoshin Line: Overview and Effects	. 0
	Through Service between Railway Operators in Greater Tokyo	14
	Through-Train Services: A Comparison between Japan and Europe	22
Fea	ature 2: Maintenance of Railway Infrastructure (part 2)	
	Maintenance and Management of JR East Civil Engineering Structures	26
Spo	ecial Feature	
	Changes in Japanese Travel Behaviour and Walking Tours from Train Stations	34
	International Conference of Railway Museums	40
	Hosting ISO/TC 269 Second Plenary Meeting in Japan	51
Bre	eakthrough in Japanese Railways 12	
	Automation of Ticket Issuing and Checking in Japan	54
Ano		
	Memories of Japan — Destination of Great Minds	61
Special Feature Changes in Japanese Travel Behaviour and Walking Tours from Train Stations International Conference of Railway Museums Hosting ISO/TC 269 Second Plenary Meeting in Japan  Breakthrough in Japanese Railways 12		65
Pho	otostory	
	Luxury Trains 2.	73