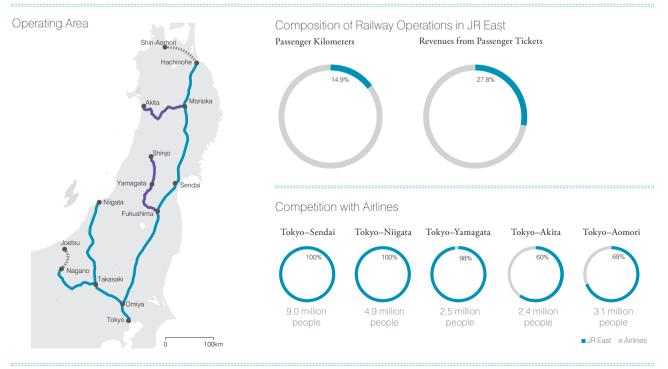
024

review of operations TRANSPORTATION Shinkansen Network





OVERVIEW

For JR East, its Shinkansen services rank alongside its transportation services in the Kanto area as a mainstay business. JR East operates a five-route Shinkansen network that links Tokyo with five regions: Tohoku, Joetsu, Nagano, Yamagata, and Akita. Specially designed hybrid Shinkansen trains, capable of running on Shinkansen and conventional railway lines, serve the Yamagata and Akita regions. Approximately 260,000 passengers use JR East's Shinkansen network daily. In Japan, rail travel has an advantage over air travel for medium-to-long-distance transportation (overland journeys that are within 750 kilometers). Because the distances from Tokyo to the main regional cities within JR East's service area are within that distance, JR East has a competitive advantage over domestic airlines within its service area.

Further, JR East has consistently done and continues to do its utmost to ensure safe, reliable transportation services for passengers. The average schedule delay per train on the Shinkansen network since JR East's establishment is approximately 30 seconds.

TOPICS

Increasing Train Services to Reflect Seasonal Demand Fluctuations

The passenger volumes of JR East's Shinkansen services change markedly during such periods as the Golden Week (spring holiday) period, the *Bon* Festival (the August holiday) period, around the New Year, three-day weekends, and weekends. During such busy periods, passenger volumes increase between 40% and 80% above capacity. One of the missions of Shinkansen services is to provide as many train services as possible during those busy periods to ensure that as many passengers as possible are seated.

Introducing Digital Automatic Train Control

Automatic train control (ATC) systems are some of the most important systems that underpin the safety of Shinkansen services. When Shinkansen services began, ATC systems for Shinkansen trains used analog signals. However, as those ATC systems age, JR East is replacing them with newly developed DS-ATC (Digital communication & control for Shinkansen-ATC) systems. On the Tohoku Shinkansen Line, JR East had completed the introduction of DS-ATC systems on all line segments by the end of March 2008. Also, JR East introduced the DS-ATC system, between Omiya and Echigo-Yuzawa stations on the Joetsu Shinkansen Line in February 2009. By using smooth single-stage brakes, JR East is working to further improve safety, shorten journey times, and increase riding comfort.

Debuting New Railcars on the Yamagata Shinkansen Line

Developed to replace the Yamagata Shinkansen Line's 400 series railcars, E3-2000 series railcars began operating from December 2008. As well as passenger-friendly features, the railcars have better passenger safety thanks to the installation of security cameras and emergency message equipment. Plans call for the completion of a steady change over to the new railcars by the beginning of fiscal 2011.

OUTLOOK

Expanding the Shinkansen Network

To accompany the launch of operations on the Hachinohe– Shin-Aomori segment of the Tohoku Shinkansen Line slated for December 2010, by the end of fiscal 2011 JR East will introduce new-type E5 series railcars that will achieve an operational speed of 300 km/h. Consequently, JR East plans to shorten the journey time between Tokyo and Shin-Aomori stations to a minimum of approximately 3 hours and 10 minutes. After this, in fiscal 2013, based on consideration of environmental conditions, we will begin the fastest Shinkansen operations in Japan at 320 km/h, which will link Tokyo and Shin-Aomori stations in a minimum of approximately 3 hours and 5 minutes.

Also, JR East has slated fiscal 2015 for the commencement of services on the Nagano–Kanazawa segment of the Hokuriku Shinkansen Line, currently under construction, and fiscal 2016 for the commencement of services on the Shin-Aomori–Shin-Hakodate segment of the Hokkaido Shinkansen Line, currently under construction.

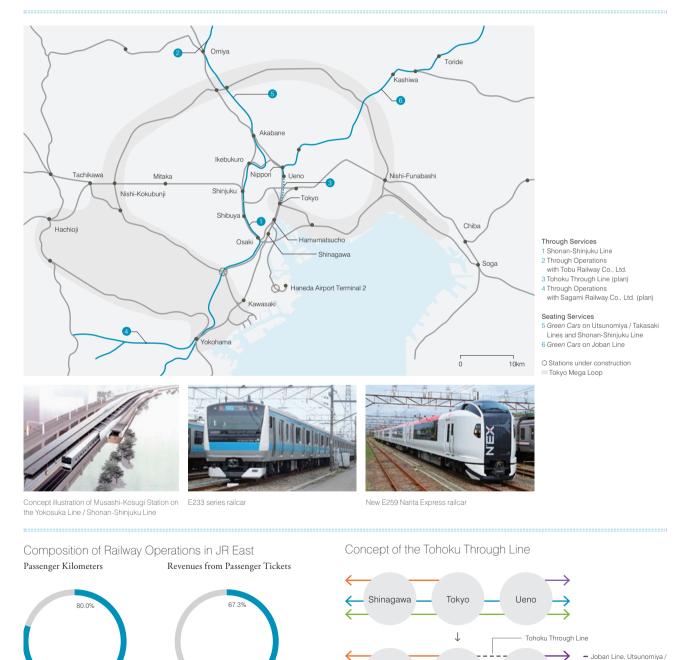
Those expansions are planned by the Japan Railway Construction, Transport and Technology Agency (JRTT).

Image of new-type E5 series railcar



026

review of operations TRANSPORTATION Kanto Area Network



Shinagawa

Tokyo

Ueno



Tokaido LineKeihin-Tohoku Line

Keinin-Tonoku Line
Yamanote Line

OVERVIEW

The Kanto area network comprises railway lines in central Tokyo and railway lines connecting Tokyo with nearby suburban cities and represents a total of 2,536 operating kilometers. JR East accounts for almost half of the Kanto area's huge, highly profitable rail transportation market in terms of passenger kilometers and operating revenues (see page 94 for details).

Also, JR East has heightened capacity by increasing through services (services that join two existing services to allow passengers to travel further without changing trains) on the Shonan-Shinjuku Line and other railway lines, increasing train services, and increasing the number of railcars that make up individual trains. In the 20 years since its establishment, JR East has increased its capacity by an amount that is more than three times the average capacity of major competitors. In these ways, JR East has competed favorably with the developing subway network in the Tokyo metropolitan area and other railway operators without raising fares or undertaking large-scale construction of new railway lines.

In addition, JR East is catering to the seating preferences of customers and further strengthening its competitive power by providing *Green Cars* (railcars that provide seating services) on local train services.

TOPICS

Introducing New-Type Railcars

JR East's development concept pursues accident prevention, passenger friendliness, and improvement of information for passengers and increased railcar functionality. JR East has realized that concept by introducing wider-body railcars that ease crowding. Following on from the introduction of wider-body railcars to the Chuo, Ome, and Itsukaichi lines, JR East has been steadily introducing these railcars to the Keihin-Tohoku and Negishi lines since December 2007. Those new-type railcars feature backups for the main railcar systems to reduce service disruptions. Further, their design accommodates the needs of seniors, women, and the physically challenged. Also, video screens above each door provide passengers with updates on the train's progress, news, and other information.

In fiscal 2010, JR East will introduce new-type E259 series railcars featuring improved comfort to the Narita Express, a limited express service that links Narita International Airport with major stations in the Tokyo metropolitan area.

OUTLOOK

Expanding the Through-Service Network

At present, JR East is carrying out a plan to realize through services by laying additional tracks between Ueno Station, the terminus of medium-distance trains arriving from the north, and Tokyo Station, the terminus of medium-distance trains arriving from the south. JR East aims to begin operations in fiscal 2014, and the project is expected to cost about ¥40 billion.

In addition, fiscal 2015 will see JR East begin mutual through services with Sagami Railway Co., Ltd. (commonly known as Sotetsu), based in Kanagawa, to realize faster, seamless services. Through the resulting expansion of its railway network, JR East aims to afford customers greater convenience and increase its operating revenues.

Opening of Musashi-Kosugi Station

The beginning of operations at Musashi-Kosugi Station on the Yokosuka Line / Shonan-Shinjuku Line between Nishi-Oi Station and Shin-Kawasaki Station will establish a new network incorporating the Nambu Line that affords passengers even greater convenience.

Creating Attractive Railway Lines

JR East will focus on improving the convenience and comfort of its transportation services and on enhancing its railway station facilities and the life-style services of lines that circle the Tokyo metropolitan area (the Musashino Line, the Keiyo Line, the Nambu Line, and the Yokohama Line). Sometimes called the "Tokyo mega loop," these lines include many hub railway stations shared with other railway companies and will likely see increasing usage due to demographic trends. Also, JR East will enhance the line-side area of the Chuo Line by completing the construction of a continuous series of level-crossing overpasses between Mitaka and Tachikawa stations, completing the introduction of new railcars for rapid services, and implementing development plans for the entire area under the elevated railway tracks. 028

TRANSPORTATION Intercity and Regional Networks





kiha E120 series railcar

Image of new-type resort train

Composition of Railway Operations in JR East Passenger Kilometers Revenues from Passenger Tickets

OVERVIEW

Intercity and regional networks cover approximately 4,000 kilometers, accounting for more than 50% of JR East's total network. Those networks provide non-Shinkansen intercity services and regional services not covered by the Kanto area network. For intercity networks, which mainly comprise limited express services, JR East will continue efforts to increase operating revenues through such initiatives as the introduction of new-type railcars and the improvement of service schedules. For regional networks, JR East will increase efficiency by establishing service schedules that reflect customer trends, introducing trains operable by one crew member, reducing maintenance costs, and increasing the number of energy-saving railcars.

TOPICS

Adapting to a Car-Oriented Society

Particularly in rural areas, the advantages of automobiles are increasing due to new highway construction and improvements in local road networks. JR East is adapting to this changing environment, coexisting with automobiles, and creating new earning opportunities by offering services that include parkand-ride, bus, and rent-a-car services.

Unveiling New-Type Diesel Trains-the kiha E120 Series

A new-type diesel train, the *kiha* E120 series railcar, debuted on the Yonesaka Line and Banetsu West Line in November 2008. The new design incorporates universal design principles, such as a lower floor making it easier for passengers to embark and disembark, a wider-body design to ease crowding, and a light stainless steel design lowers the amount of maintenance required. Moreover, new technology realizes a quieter engine with cleaner exhaust gases.

OUTLOOK

Bringing New-Type Resort Trains into Operation

To ensure tourist passengers enjoy their train journey as much as possible, JR East operates resort train services to resort areas. These services are very popular with customers throughout the year. In conjunction with the planned launch of operations on the Hachinohe–Shin-Aomori segment of the Tohoku Shinkansen Line in December 2010, JR East plans to introduce new-type resort trains in the Aomori area, on the Tsugaru and Ominato lines and the Gono Line, and in the Shinshu area, on the Oito Line. The new resort trains will incorporate hybrid systems similar to those used by the world's first commercial hybrid railcars, which JR East introduced to the Koumi Line in the summer of 2007.

TRANSPORTATION Travel Agency Services

Number of *View* Tourists by Destination Thousands

Northern Tohoku / Hakodate	310
Southern Tohoku	430
Niigata / Shonai	120
Nagano	140
Kanto	350
Токуо	970
Izu	260
Other destinations	230
Ski	260
Total	3,080



Number of Otona no Kyujitsu Club Members

End of fiscal 2009		1,040
End of fiscal 2008		820
End of fiscal 2007		580
End of fiscal 2006		320
Otona no Kvuiit	su Club: Zipangu	

Otona no Kyujitsu Club: Zipangu
Otona no Kyujitsu Club: Middle

OVERVIEW

For travel agency services, JR East increases usage of its railway network and invigorates regional economies by identifying regional tourism assets and promoting them through travel packages. JR East sells mainstay *View Travel Products* travel packages through *View Plaza* travel agencies in JR East railway stations, other travel agencies, and the Internet.

Also, JR East is generating demand from overseas customers by providing a service that enables them to reserve seats from overseas through the Internet and by advancing promotional activities in collaboration with the Visit Japan Campaign.

TOPICS AND OUTLOOK

Targeting Seniors through Otona no Kyujitsu Club

As an aged society approaches, JR East aims to earn the early endorsement of seniors in a broad sense that includes the baby boomer generation and encourage higher usage of its railway network. To those ends, JR East launched *Otona no Kyujitsu Club: Zipangu*, targeting men aged 65 and above and women aged 60 and above, and *Otona no Kyujitsu Club: Middle*, targeting the baby boomer generation, those aged 50 and above. JR East stimulates railway network usage within its service area by offering discounts and undertaking a wide variety of sales promotions through club magazines and other media. At the end of March 2009, the two clubs had approximately 1,040,000 members. By the end of March 2011, JR East aims to increase membership to 1.3 million.

Creating and Selling Travel Packages that Exploit Regional Tourism Assets

JR East's service area has an abundance of tourism assets related to history, culture, townscapes, and festivals, including the Shirakami-Sanchi mountain range and the shrines and temples of Nikko, which are designated UNESCO World Heritage Sites. JR East spurs tourist demand by working in partnership with local communities to develop tourism areas and by creating and marketing *View Travel Products*.

Launching Destination Campaigns

The JR Group initiates major tourism campaigns to attract tourists and encourage use of its various services. In its efforts, JR East joins forces with local authorities and local groups involved in tourism to develop and intensively market regional tourism assets. In fiscal 2009, campaigns within the JR East service area included the *Yamanashi Destination Campaign*, from April to June 2008, and the *Sendai / Miyagi Destination Campaign*, from October to December 2008. Fiscal 2010 will see the *Yokohama / Kanagawa Destination Campaign*, from June to August 2009, to celebrate the 150th anniversary of the opening of the Port of Yokohama. Also, the *Niigata Destination Campaign* will be from October to December 2009.