

Opening of SCMAGLEV and Railway Park

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Introduction

JR Central's opening of its SCMAGLEV and Railway Park on 14 March 2011 was attended by 3400 people and 6 weeks later on 30 April 2011, the total number of visitors had already exceeded 200,000. SCMAGLEV is the abbreviation for Superconducting Maglev that JR Central is now developing for revenue services. The SCMAGLEV and Railway Park has 39 exhibits of different rolling stock, ranging from steam locomotives to shinkansen trains and a prototype Superconducting Maglev. In addition, it has the largest railway diorama in Japan, various simulators, Railway History Room, Superconducting Maglev Room, etc., appealing to both children and adults. Moreover, the 4000-m² photovoltaic system on the roof supplies 25% of the museum's electricity consumption and helps reduce global warming.

Basic Information and Concept

The SCMAGLEV and Railway Park in Nagoya City is 24 minutes from Nagoya Station by train and 30 minutes by car. It is close to Kinjofuto Station (2-minute walk) on the Aonami Line from Nagoya. Table 1 shows the basic information about opening times, entrance fees, etc.

The museum concept is to:

- Show how high-speed railway technologies have developed using various exhibits
- Offer visitors a place to learn about the impact of railways on society
- Give both children and adults fun and joy learning with gadgets, such as models and simulators

A key function of the museum is to give visitors 'a place to learn' so special discount tickets are offered for school trips, groups, etc. All explanations on museum displays are written in simple plain words so even elementary school students can understand. The entire facility is fully barrier-

Table 1 Basic Information on SCMAGLEV and Railway Park

Location	Kinjofuto, Minato-ku, Nagoya, Aichi Prefecture	
Size	Area	11,600 m ²
	Total	14,400 m ² (1 st floor + 2 nd floor)
Opening Hours	10:00 to 17:30	
Holidays	Closed Tuesdays [When a national holiday falls on a Tuesday, the museum is closed next day.] Closed during New Year holiday from 28 December to 1 January	
Admission Fees	Adult	1000 yen [800 yen]
	Schoolchildren	500 yen [400 yen]
	Child	200 yen [100 yen]
	[] rates for groups of 20 or more people	
	Disabled visitors	500 yen (18 and over) 200 yen (under 17)
	One accompanying visitor may enter for the same reduced fee.	
Exhibition	39 pieces of rolling stock, 1 bus, railway diorama, simulators, Railway History Room, Superconducting Maglev Room, theatre, etc.	



Opening day on 14 March 2011

(JR Central)

free in compliance with Japanese law, assuring easy access for wheelchair users. Also, all museum maps and displays include explanations in Braille. Touch-panel audio guides cover 8 languages to ensure that foreign visitors can enjoy the museum too.

Grand Tour of SCMAGLEV and Railway Park

Layout

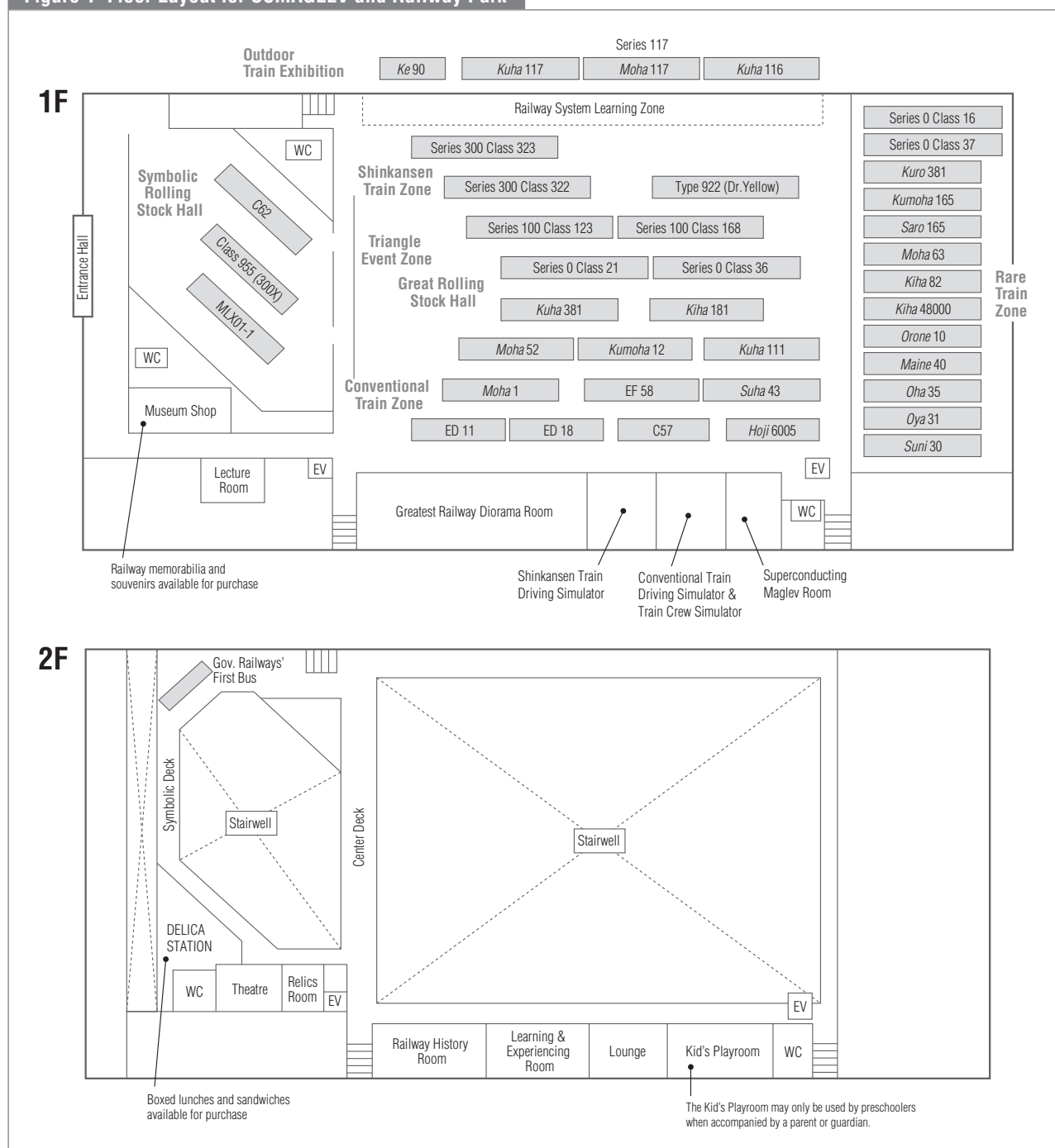
The many exhibitions include the Symbolic Rolling Stock Hall, Great Rolling Stock Hall, Railway System Learning

Zone, Driving Simulators, and Superconducting Maglev Room on the ground floor, as well as the Railway History Room, Learning & Experiencing Room, Relics Room, Kids' Playroom, Theatre, and lounges on the first floor.

Rolling Stock Exhibits

The ground floor is separated into two zones: the Symbolic Rolling Stock Hall and the Great Rolling Stock Hall. These zones house 35 trains with another 4 trains outside.

Figure 1 Floor Layout for SCMAGLEV and Railway Park





Symbolic Rolling Stock Hall

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Table 2 Rolling Stock Exhibits in Symbolic Rolling Stock Hall

Rolling stock	Description
Superconducting Maglev MLX01-1	Holds world speed record of 581 km/h set in 2003 on Yamanashi Test Line
Experimental Shinkansen 300X	Set world speed record of 443 km/h for EMU in 1996
Steam Locomotive Class C62-17	Holds world speed record of 129 km/h for narrow-gauge steam locomotives

Symbolic Rolling Stock Hall

This slightly darkened hall showcases three pieces of famous Japanese rolling stock (Table 2). The large 29 × 4-m film screen displays dynamic films about the role of these famous trains in the development of high-speed railways.

Great Rolling Stock Hall

This huge, brightly lit hall has 32 train exhibits seen in natural lighting from a roof top light. The trains are arranged in a V-shape as shown in Figure 1, which is ideal for taking photographs. Events or parties can be held inside the triangle zone. There are three zones: the Shinkansen Train Zone, Conventional Train Zone, and Rare Train Zone.

The Shinkansen Train Zone displays seven shinkansen

from different eras in shinkansen history, including the first Series 0, as well as the Series 100 and 300, and Dr. Yellow (shinkansen multi-purpose inspection train).

The Conventional Train Zone displays 12 pieces of rolling stock used throughout Japan, ranging from old steam locomotives to modern trains.

There are historically significant trains like the Class *Moha* 52, with streamlined shape, the Class C57 steam locomotive that hauled the imperial carriages, and the famous Class EF58 electric locomotive that hauled the *Tsubame* and *Hato* limited expresses.

The 13 trains in the Rare Train Zone include historically valuable rolling stock, such as the shinkansen, electric cars, diesel rail cars, and carriages, as well as work trains. Normally these trains can only be viewed from outside, but a future special event will allow visitors inside them.



Great Rolling Stock Hall

(JR Central)



Greatest Railway Diorama

(JR Central)

Railway System Learning Zone

This zone uses models and real objects to explain how high-speed railways work. Not only the technology but also the jobs of the many people who work to make the railway safe and comfortable are explained.

Visitors can enjoy learning about the differences between shinkansen and conventional lines, as well as the evolution of the shinkansen from the Series 0 to Series N700.

The many interactive exhibits allow budding engineers to try spinning a wheel from a Series 300 bogie, and raising and lowering a pantograph. Another Learning & Experiencing Room gives hands-on experience in learning railway technologies to familiarize visitors with high-speed railway systems.

Greatest Railway Diorama Room

One of the 'huge' attractions at SCMAGLEV and Railway Park is Japan's biggest railway diorama. Although the diorama is big, it does not sacrifice quality and precision for size and it reproduces the trackside scenery from Tokyo to Nagoya, Kyoto, Nara and Osaka along the Tokaido Shinkansen. The famous structures and lifelike scenery recreate everyday life. We hope visitors will get up close and experience this dream world for themselves.

Simulators

There are three types of simulator to experience: the Shinkansen Train Driving Simulator, Conventional Train



Shinkansen Train Driving Simulator

(JR Central)



Conventional Train Crew Simulator

(JR Central)

Driving Simulator, and Conventional Train Crew Simulator. The former gives a very realistic feel of what it's like to drive the latest Series N700 on the Tokaido Shinkansen as the trackside scenery rushes by on large display screens in front of the replica cab windows.

There are eight driving simulators and one crew simulator in the Conventional Train Simulator room—a first in Japanese railway museums. There is an extra charge of 500

yen to drive the Shinkansen Simulator and 100 yen for the conventional crew and driving simulators.

Theatre

The 55-seat theatre is for enjoying films on a big 200-inch screen about how the shinkansen was developed and operates safely.



Superconducting Maglev Room

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Superconducting Maglev Room

This room shows the technology and history of Maglev. There are models to enjoy learning why the Superconducting Maglev travels safely at such high speeds, and also why it levitates. You'll be 'blown away' in the special theatre where you experience travelling at 500 km/h just like riding the real Maglev.

We hope that everyone who visits this exhibit will experience an idea of what the Superconducting Maglev will be like when it starts future operations.

Railway History Room

This room shows the development of railways around the Tokaido Line linking Japan's three major cities of Tokyo, Nagoya and Osaka. It explains both the history of the line as well as the roles the railway played and social changes. It also has a special booth focusing on shinkansen history, explaining how the shinkansen project proceeded.

Kid's Playroom

A special room for kids is full of railway toys that they can play with in a railway diorama and shinkansen cab.

Conclusion

Many people have visited the museum since it opened on 14 March, making it one of the most popular railway museums in Japan. We are continuing to improve and update the exhibits and are also planning future events on high-speed railways to keep the museum relevant and attractive for visitors.

We also hope to contribute to the railway industry by conducting research on railway history and technology. ■



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Mr Ueno is an Assistant Manager of the SCMAGLEV and Railway Park. He joined JR Central in 1996, after earning a Master's Degree at the Graduate School of Engineering of The University of Tokyo.