

Celebrating 20 Years of JR Freight

*Japan Freight Railway Company
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Introduction

It is 20 years since Japan Freight Railway Company was established in 1987—the time has really flown by!

From the late 1970s, JNR's freight division faced a series of setbacks and the system was overhauled at the February 1984 timetable revisions when JNR abolished the yard system nationwide and started operating direct freight trains. Some critics even adopted the bold stance that rail freight was unnecessary because goods could be carried more efficiently by other modes. Faced with these circumstances, the Supervisory Committee for JNR Reconstruction published a paper entitled *A Suggestion for Reforming JNR* in which they suggested that rail freight in Japan should be organized as an integrated independent business, making full use of rail's advantages in carrying certain freight categories. However, the specific measures were left up to the government and JNR.

As a result, JR Freight was established to ensure profitability based on a framework whereby the six newly formed JR passenger companies would take ownership of lines and infrastructure and JR Freight would run freight services over these lines by paying the passenger companies a track usage fee based on incremental costs.

20-year History of JR Freight

In the first 6 years of operations (1987–92), JR Freight posted annual profits due in part to concerted efforts to transition freight transport from road to rail and also due to the buoyant Japanese economy.

Unfortunately, the company fell into the red for the next 8 years (1993–2000) caused by a significant drop in freight volumes resulting from the collapse of the 'bubble economy' and transport deregulation allowing truck operators to enter the market more easily. This lacklustre performance was despite concerted efforts by management and employees to streamline operations, including substantial personnel reductions. The 1995 Great Hanshin Earthquake severed operations on the Tokaido main line for about 100 days, which seriously affected JR Freight operations.

The company returned to the black in FY2001 where it managed to remain until FY2006 although profitability was almost negligible (Table 1). During this time, the company has made tremendous efforts to diversify its business operations; in addition to freight transport, we have rapidly developed related businesses, such as leasing buildings used as distribution facilities to make optimum use of land acquired by the company and thereby stabilize our platform.

Table 1 Revenue

(¥ billion)

FY	1987	2000	2001	2002	2003	2004	2005	2006
Container	80.9 47%	104.9 65%	106.0 66%	104.3 66%	108.5 65%	107.1 66%	108.4 66%	112.1 69%
Freight Wagon	75.8 44%	26.6 17%	24.4 15%	22.9 15%	20.7 12%	19.4 12%	18.4 11%	16.8 10%
Other	15.9 9%	28.7 18%	30.1 19%	30.1 19%	36.5 22%	35.0 22%	37.8 23%	34.6 21%
Total	172.7	160.2	160.7	157.4	165.7	161.6	164.7	163.7

Note: percentages for different methods each fiscal year

Table 2 Freight Carried

(million tonne)

FY	1987	2000	2001	2002	2003	2004	2005	2006
Container	13.81 25%	20.68 52%	20.88 53%	20.84 54%	22.01 58%	21.98 59%	22.35 60%	23.18 63%
Freight Wagon	42.46 75%	19.42 48%	18.67 47%	17.81 46%	15.86 42%	15.07 41%	14.76 40%	13.43 37%
Total	56.27	40.1	39.56	38.65	37.87	37.05	37.11	36.61

Note: percentages for different methods each fiscal year

Looking back over our 20-year history in rail operations, we have broken away from the confines of the JNR era and have successfully established a highly efficient transportation system. With the exception of crude oil, which is suited to bulk wagon transport, we have created a shift from freight wagons to containers (Table 2).

At the same time, we have implemented a range of measures to tailor containerized transport to the needs of shippers. First, JR Freight has increased speeds to expand the next-day delivery region. In addition to achievements such as the completion of the Seikan Tunnel between Honshu and Hokkaido, and the Honshu-Shikoku bridges, we have introduced new containers and inverter locomotives using technological breakthroughs to run at higher speeds. We have also improved container capacity by enhancing infrastructure thanks to government support for increasing the length of freight trains on the Tokaido and San'yo main lines, and by introducing the Effective & Speedy Container Handling System (E&S System) incorporating loading and unloading lines at 27 stations. We have also installed top lifters to handle larger containers with loads equivalent to a 10-tonne truck, levelled out transportation demand to make best use of capacity, and streamlined forklift truck operations. Furthermore, we have introduced the IT-FRENS & TRACE system for collecting various basic data at stations to use resources more efficiently. Nevertheless,

there are still many more issues to solve, such as replacing the large number of old locomotives still in operation with new models as soon as possible.

Memorable Events

I would like to touch upon three especially memorable events during my time as President of JR Freight. The first was the 31 March 2000 eruption of Mt. Usu (732 m) in Hokkaido, which prevented normal services on the Muroran Line—the main rail artery between Honshu and Hokkaido—for 71 days. Of course goods, had to be carried somehow between Honshu and Hokkaido and I remember vividly how we took the initiative in using every conceivable mode to ensure freight reached its destination, including diverting trains via the Hakodate Line, carrying freight by truck instead of train and also using ships for transportation. The unusually large number of natural disasters that have occurred in Japan recently reaffirms the importance of formulating plans for freight transport at such times.

The second event was the problems associated with projected shinkansen lines and conventional non-shinkansen lines running parallel to them. With the extension of the Tohoku Shinkansen to Hachinohe, an adjustment system was introduced whereby the increase in track fees paid by JR Freight to JR East for using the tracks between Morioka and Hachinohe is reimbursed to JR Freight from the shinkansen track usage fees paid by JR East to Japan Railway Construction Public Corporation (JRCC). It took the government and the Ministry of Land, Infrastructure and Transport 10 years to implement this system, which constitutes a basic rule on how joint public-private ventures will acquire ownership of conventional lines running parallel to new future shinkansen lines. I well remember the day when this was finally achieved because it was an important topic that could have seriously impacted our company's future. The third event is the transfer of the facilities at Umeda Station to Suita Freight Terminal and Kudara Station. This project will complete the infrastructure reforms advocated by the JNR restructuring and it is 20 years since I first



Top lifter for E&S System and larger containers

became involved as head of the Kansai branch office when JR Freight was established. Although the project has seen many twists and turns, I am delighted that construction of the modern Suita Freight Terminal is now underway, because it will strengthen our partnerships with the freight shipping community.

Future Outlook

The Japanese distribution industry is changing rapidly with total freight carried continuing to fall. The number of trucking operators has increased by 50% to some 60,000 companies as a result of deregulation, meaning that the current oversupply is unlikely to change.

The concept of supply chain management has become widespread in the industry, with customer requirements becoming increasingly stricter. While competition will continue to intensify, the modal shift towards rail is gaining momentum as expectations rise. There are several reasons behind this shift. Various initiatives are being taken to reduce environmental burdens in line with the Kyoto Protocol agreements and efforts are being stepped up in the second year after the Revised Energy Saving Law was promulgated. Other factors include skyrocketing oil prices and labour shortages due to an aging workforce and declining birth rate.



Super Rail Cargo—world's first high-speed container train



Super Green Shuttle Midori entered service in March 2006

Companies are incorporating freight transport by rail into their distribution systems and some are using trains such as *Super Rail Cargo*, *Super Green Shuttle Midori* and *Long Path Express* in both directions for the first time. We must use this foothold to forge ahead and develop systems that will gain customers' trust. In FY2007, the last year of our *New Stream 2007* medium-term management plan, we are redoubling our efforts while realizing that safety takes priority over everything else. We also plan to implement concrete measures to further enhance reliability and thereby minimize any possibility of disruption and inconvenience to customers.

Capital investment to ensure service reliability is a matter of the highest importance that we are urgently tackling. We have symbolically mentioned the term '21st Century' in reference to the new fundamental transportation system and we want to redefine rail freight transportation by implementing structural reforms quickly to minimize locomotive changes and to dispatch direct unit freight trains for high-speed goods transport.

Needless to say, our ultimate goal is full-scale privatization but this has not been achieved yet. In FY2006, we received government support as an extension to the special measures related to transfer of the fixed assets tax. We have also received approval from the JR passenger companies to continue using the basic framework for rules for track usage fees.

Going forward, we will fulfil our role in the modal shift to freight transport by rail and thereby bring freight rail operations out of the red and establish a solid base to achieve full privatization.



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JR Freight Chronology

1987

- 17 Sep — Started JR F-Tourist operation
- 1 Oct — Introduced first 30-ft containers
- 8 Oct — Started rental storage space service at Sumidagawa Station

1988

- 13 Mar — Started operations on Tsugaru, Kaikyo and Esashi lines
Started *Super Liner* high-speed container train
- 10 Apr — Started Operations on Honshi-Bisan Line
- 22 Jul — Sold Omoshiro-Land on site of former Shiodome Freight Yard
- 1 Oct — Started Japan Sea Coastal Liner service between Sapporo Freight Terminal and Fukuoka Freight Terminal
- 13 Dec — Train derailed on Hakodate Line

1989

- 11 Mar — Series EF66 DC electric locomotive exceeded 100 units
- 26 Apr — Started operation of special international maritime container train between Tokyo Freight Terminal and Honmoku
- 28 Apr — Completed freight handling and storage facility at Shin-Moriyama Station
- 24 May — Started Slide Van System (SVS) between Sagami Kamotsu and Tomakomai
- 22 Jun — Started special piggy-back train service between Sumidagawa and Nuttari
- 1 Jul — Introduced new freight car information system
- 1 Oct — Started operations on Kitakami Line between Kitakami and Yokote
- 2 Nov — Started *Mazda* train for transporting automobile components between Nishi-Hamamatsu and Higashi-Hiroshima

1990

- 10 Mar — Opened Niigata Freight Terminal and Toyama Freight Station
Completed improvements at Umekoji Station
Started 26-wagon trains capable of hauling 1300 tonnes between Tokyo Freight Terminal and Umeda
- 15 Mar — Opened Nishi-Okayama Station
- 8 Nov — Started CI project F21 Plan

1991

- 25 Mar — Completed F-Plaza first building at Kajigaya Freight Terminal
- 11 Jun — Formulated F21 Plan corporate philosophy
- 31 Jul — Started operations on Nippo Line between Hyugashi and Sadowara
- 14 Oct — Started car-pack vehicle container for transporting cars between Utsunomiya Freight Terminal and Kanda-ko

1992

- 3 Mar — Started oil tanker piggy-back service from Honmoku to Niiza Freight Terminal
- 1 Jul — Opened F-Plaza Tokyo (Building B)
Introduced Series EF200 DC electric locomotive

1993

- 10 Mar — Introduced DF200 electric-diesel locomotive
- 23 Jun — Started work to upgrade freight capacity on Tokaido main line

1994

- 3 Jan — Started Freight Information Network System (FRENS)
- 21 Mar — Opened Himeji Freight Yard
- 17 Jul — Opened Sea Train facility at Nagoya Port
- 16 Nov — Opened Central Training Centre for locomotive drivers
- 18 Nov — Announced *Freight 21* medium-term management plan

1995

- 6 Mar — Started car-rack system between Nagoya Freight Terminal and Niigata Freight Terminal
- 13 Mar — Started records management service
- 15 Jul — Opened Sea Train Land amusement park at Nagoya Port
- 2 Oct — Started large-scale transportation of maritime containers between Tokyo Freight Terminal/Honmoku to Utsunomiya Freight Terminal
- 6 Oct — Started *Clean Kawasaki* train carrying domestic garbage between Kajigaya Freight Terminal and Suehirocho

1996

- 23 Oct — Launched satellite-based train tracking system
- 21 Nov — Announced *New Freight 21* medium-term management plan

1997

- 23 Jun — Committee reached consensus for resolving fundamental problems to achieve full-scale privatization of JR Freight
- 5 Dec — Started EF210 DC electric locomotive *ECO-POWER Momotaro* service

1998

- 1 Feb — Opened Mets Tabata Hotel
- 2 Mar — Completed waste processing plant at Tokyo Freight Terminal
- 30 Mar — Completed electrification work for Inazawa Line (Inazawa-Nagoya Freight Terminal)
- 6 Jul — Established JR Freight Research Centre
- 25 Dec — Designated Suehiro Bridge at former Yokkaichi Port station as important cultural property

1999

- 10 Mar — Closed Iidamachi Station
- 26 Apr — Started swap-body transportation between Tokyo Freight Terminal and Fukuoka Freight Terminal
- 31 May — Moved into new headquarters in Iidabashi, Chiyoda-ku, Tokyo
- 28 Jun — Transferred Iidamachi Paper Distribution Centre facilities to Niiza Freight Terminal and Sumidagawa Station
- 16 Sep — Started short-distance transportation of maritime containers between Yokohama Port and Tokyo Freight Terminal

2000

- 1 Feb — Completed improvements at Hitachi Freight Yard
- 11 Mar — Started EH 500 AC/DC electric locomotive *ECO-POWER Kintaro* service
- 15 Mar — Started rail transport of LNG between Niigata Freight Terminal and Kanazawa
- 1 Apr — Introduced container auto-scan number system
- 19 Jun — Opened you me town Hakata commercial complex on site of former Hakata Port Station
- 16 Aug — Opened Takamatsu Freight Terminal
- 10 Oct — Established Hanyu Off-rail Station
- 2 Dec — Started freight services between Nishi-Funabashi and Chiba on Musashino Line and Minami-Nagareyama and Nishi-Funabashi on Keiyo Line

2001

- 22 Jan — Completed improvements at Hachinohe Freight Yard
- 7 May — Completed improvements at Ajikawaguchi Station
- 1 Jun — Started safety medium-term plan
- 20 Jun — Completed EH200 DC electric locomotive *ECO-POWER Blue Thunder*
- 13 Sep — Announced summary of plan to build Maibara Freight Terminal
- 19 Oct — Completed improvements at Tsuchiura Station
- 1 Dec — Started operations of *Taki* 1000 Series tanker wagons at 95 km/h between Sendaikitako Freight Terminal and Morioka Freight Terminal
- 12 Dec — Completed EF510 AC/DC electric locomotive *ECO-POWER Red Thunder*
- 15 Dec — Opened Tenjin Yunohana natural hot spring public baths in Fukuoka

2002

- 1 Mar — Started container quality information system
- 23 Mar — Opened Kitakyushu Freight Terminal
- 25 Mar — Completed improvements at Kumamoto Station
- 1 Apr — Launched *New Challenge 21* medium-term management plan
- 1 Dec — Started operations at Takaoka Freight Station

2003

- 27 Mar — Opened I-GARDEN AIR on site of former Iidamachi Freight Station
- 12 Jun — Opened Kanazawa Freight Terminal
- 1 Dec — Opened Kobe Freight Terminal

2004

- 13 Jan — Started IT-FRENS & TRACE system (full-scale operation started in October 2005)
- 13 Mar — Started M250 *Super Rail Cargo* high-speed container train service between Tokyo Freight Terminal and Ajikawaguchi
Opened Kagoshima Freight Terminal
- 9 Nov — Started rail transportation of LNG between Himeji Freight Terminal and Toyama Freight Terminal

2005

- 1 Apr — Launched *New Stream 2007* medium-term management plan
- 2 Jun — Established freight car technical training centre
- 7 Sep — Opened Kariya Off-rail Station
- 10 Dec — Started *Super Oil Express* operation between Chiba Freight Yard and Koriyama

2006

- 10 Jan — Discontinued container freight labels
- 10 Feb — Signed agreement to start construction of Suita Freight Terminal
- 16 Mar — Issued first environmental and social report
- 18 Mar — Started *Super Green Shuttle Midori* service between Tokyo Freight Terminal and Ajikawaguchi
Started Sea & Rail service between Japan and China in conjunction with COSCO
- 23 Mar — Opened Tosu Freight Terminal
- 1 Apr — Changed name of all container handling centres to Off-rail Station
- 12 Sep — Signed memorandum with Korea Railroad for Rail & Sea & Rail service between Japan and South Korea
- 15 Nov — Started *Long Path Express* service for transporting automobile components between Nagoya-Minami and Morioka Freight Terminal
Launched mobile phone transport information service

*Compiled by Kotsu Shimbunsha, based on company directory and *Kotsu Shimbun*