The Tale of One Thousand Timetable Issues

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Introduction

Spring 2009 marked an epoch in Japan when the May edition of the monthly *JTB Timetable* was published by JTB Publishing on 20 April, bringing the magazine to issue 1000 since its launch in April 1925. This milestone has been reached only by a handful of other art and literary monthlies in Japan—a commonplace timetable, filled mostly with numbers, has caused a stir in the world of Japanese publishing.

Although monthlies are usually published every month, 12 times a year, our timetable's monthly publication was interrupted from December 1943 to 1947 because of WWII—but the publishers of the *JTB Timetable* overcame the tragedy of war and have continued publishing unbroken for 84 years.

The history of railway timetables in Japan dates back much further than 1925, originating with a single sheet in 1872 for the line between Shimbashi and Yokohama. Contrast this with the current *JTB Timetable* of 1152 pages and we see it has taken 127 years for the timetable to grow from 1 to 1152 pages. Obviously we don't have enough space here to cover 127 years of historic events in the timetable but I have compiled some key facts from the historic debut up to the current state of the Japanese timetable.

Tracing Roots of One Thousand Consecutive Issues

From one sheet to directory

1872 saw the birth of the first railway in Japan between Shimbashi and Yokohama under the guidance of British Engineer-in-Chief Edmund Morel (1841–71). Prior to the official opening by the Meiji Emperor (1852–1912) on 14 October (12 September in old lunar calendar), Locomotive No. 1 had been making provisional runs between Shinagawa and Yokohama from 12 June (7 May in lunar calendar) and the Railway Board produced a railway timetable showing departure and arrival times as well as fares. This is the first known railway timetable in Japan.

Starting with the inaugural run carrying the Meiji Emperor on 14 October, nine return services were run each day, stopping at Shimbashi, Shinagawa, Kawasaki, Tsurumi, Kanagawa and Yokohama stations, and covering the 29 km between the termini in 53 minutes. Times and fares were posted on station boards to keep passengers informed about services. At the same time, the Railway Timetable and Fare List was recorded in the official archives of the Railway Board, the government office controlling the line at that time. In addition, the *Yokohama Mainichi Shimbun* newspaper dated 13 September 1872 carried an advertisement announcing the sale of railway timetables by its publisher Yokohama Kappansha, so marketing of timetables emerged in step with the railway's launch.

In the headlong rush to expand the network as a potent political symbol of progress and civilization, the government purchased railway technologies from the western powers and hired foreigners to assist with the construction. As intended, the railways played a full part in Japan's modernization but another less tangible asset obtained with the building of railways nationwide was a perceptual revolution related to time and time keeping.

At that time, Japanese people still marked time by the lunar calendar; day was from sunrise to sunset, and night was from sunset to sunrise—both day and night were divided into six equal *ittoki* parts (1 day had 12 *ittoki* in total) of about 2 hours. Since sunrise and sunset change with the season, the lengths of days, nights, and *ittoki* changed with the season too. As a result, people lived with a loose sense of time. However, the railway departures and arrivals were run on an hours-and-minutes basis where time was exactly divided into 24 hours each day and 60 minutes each hour, based on the Gregorian calendar. Soon after the western railway and timekeeping systems arrived in Japan, the government switched to the western calendar and timekeeping systems.

Following the arrival of the railway in Yokohama, new lines were completed between Osaka and Kobe then between Osaka and Kyoto. Despite this expansion, the small number of services still allowed the nation's railway timetable to fit on one sheet of paper.

However, as soon as the government authorized construction of railways by private companies, the ensuing construction boom saw new lines in Hokkaido, Tohoku, Kansai (area of western Honshu encompassing Osaka, Kobe, Nara and Kyoto), San'yo(a conurbation consisting of Okayama,

Hiroshima. and Yamaguchi prefectures), and Kyushu, and the days of a single-sheet timetable had passed. Travellers now needed a portable timetable listing the complexities of rail travel, such as changes, and onward connections over a wide area. Inevitably, bound timetable books (directories) started pouring off printing presses.

The oldest known timetable directory discovered to date is the *Revised Railway Handbook* (190 by 122 mm) published by Bunseido of Shizuoka Prefecture in May 1889. We think it was published in conjunction with the opening of the Shizuoka–Hamamatsu section of the Tokaido main line on 16 April 1889. From then on, more timetables in many styles and with various titles were issued irregularly to match the opening of new lines or revisions to existing timetables.

Advent of monthly timetables with debut of *JTB Timetable*

The publishing company Koinshinsha launched the first monthly timetable—*Travel Guide for Steam Trains and Steam Ships* in October 1894. Koinshinsha was established in 1890 by Takemasa Tezuka (1853–1932), a graduate of Keio Public School (which later became Keio University), and published magazines and study guides. It is said that Tezuka got the idea to publish a monthly timetable with encouragement from Yukichi Fukuzawa (1835–1901), his former teacher and expert on European affairs. Departures and arrivals were printed vertically from right to left using Chinese *kanji* characters for both words and numbers, as was the style for steam trains and steam ships. There was an outline of departures and prices for rickshaw, carriage, and horse-drawn tramway services, as well as palanquin and porter services at Odawara and Hakone. The timetable included guides to famous locations and historic spots as well as current news and a serialized novel. The preface to the first edition describes the world's very first marketed timetable—Bradshaw's railway timetable—published in Britain (the birthplace of steam trains and ships) in 1839. It also notes the usefulness of the guide's several hundred pages of departure and arrival times and fares.

The high demand for *Travel Guide for Steam Trains and Steam Ships* led to the launch of several copycat variants, such as Koekisha's *Latest Timetable and Travel Guide* (June 1901), which changed to *Rail and Ship Travel Guide* in 1908, and Hakubunkan's *Railway and Steam Ship Travel Guide* (June 1907). All were mainly travel magazines and guides.

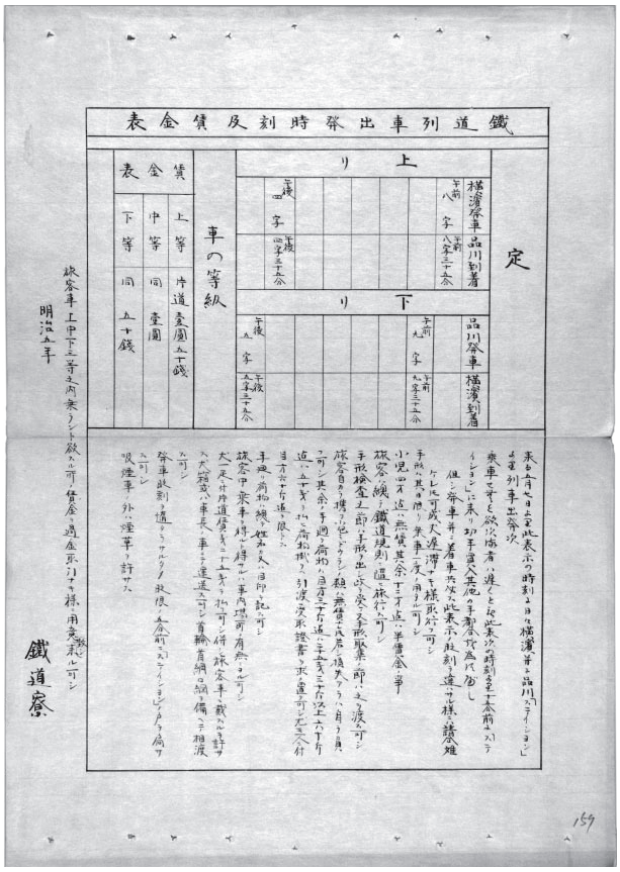
Seibisha's 265-page, B5-size *What to Do when Traveling* issued first in January 1904 introduced every station nationwide, had information on famous places, and provided guides to tourist spots like Nikko and Hakone. Although it was essentially a guidebook, it had a railway timetable and was the first timetable to use Arabic numerals and horizontal left to right writing.

To attract foreign tourists (and currency), in 1910, the Imperial Japanese Government Railways also published a timetable that included Arabic numerals and horizontal writing together with English. When the successor Japanese Government Railways took over, they also intermittently published a *Steam Train Timetable* with Arabic numerals for use in the department.

The 1905 Treaty of Portsmouth ended the Russo-Japanese War (1904–05) and the South Manchuria Railway Company (SMR) established in 1906 provided an international corridor and trade route via Dalian, Vladivostok, and the Trans-Siberian Railway to Europe. Japan set to work attracting tourists in order to get foreign currency by establishing the Japan Tourist Bureau in 1912 within the Japanese Government Railways. The timetables of European countries were copied, giving a table of contents, index of stations, and systemized search by putting all times in actual tables.

The rail network continued growing at breakneck speed as private railway companies built main-line routes across the country, but the government responded by nationalizing most lines in 1906 to almost instantly create a nationwide network overnight.

When Tokyo Station was completed in 1914 to take over the key role of the start of the Tokaido main line from Shimbashi Station, sales of timetables became a cutthroat



Railway timetable and fare list (The Railway Museum)

business between Koinshinsha, Koekisha, and Hakubunkan, spawning an intense news coverage feud. This state of affairs did not escape the attention of the Japanese Government Railways, which forced the three publishers into a merger in 1915, creating the Ryokoannaisha with Takemasa Tezuka as president. He launched the *Official Steam Train and Steam Ship Travel Guide* with approval from the Japanese Government Railways. The cover was designed by Hisui Sugiura (1876–1965), a designer at Mitsukoshi Department Store. His design of a train running along a seafront offset by three pine trees to symbolize the three merged publishing houses endeared itself to the nation and was used for 30 years until the last edition in March 1944.

The Imperial Japanese Government Railways was replaced by the Japanese Ministry of Railways (the term "Japanese Government Railways" was used when referring to the lines owned by the Ministry) in 1920, which published the *Train Timetable* as a service timetable that included Japanese Government Railways' lines, all sea routes, regional railways and trams. After 1923, times were printed for all stations (prior to then only principal stations had been mentioned), and publication became monthly. Around this time, the timetable started to look similar to today's format.

There were two timetables at the time—the *Official Steam Train and Steam Ship Travel Guide* using kanji numbers, and the *Train Timetable* (for national railway's institutional use) using Arabic numbers. With the popularization of Arabic numbers and because the *Official Steam Train and Steam Ship Travel Guide* omitted some stations and trains, people using the *Train Timetable* at stations started demanding public sales of the *Train Timetable*.

In February 1924, the Japanese Ministry of Railways, shipping companies and travel organizations established the Japan Culture and Tour Association to promote tourism in Japan. In April 1925, this association reproduced the *Steam Train Timetable with Ship and Motorcar Departures & Arrivals* compiled by the Transport Bureau of the Japanese Ministry of Railways. In other words, the Japan Culture and

Steam Train Timetable—the inaugural *JTB Timetable* (Author)

Tour Association had taken over marketing the timetable used for national railway service since the time of the Imperial Japanese Government Railways.

This *Steam Train Timetable* was the first JTB timetable. You might wonder why and some background about JTB is needed to understand the answer; the Japan Culture and Tour Association was the forerunner of JTB. The Japan Culture and Tour Association (it changed its name to Japan Tour Association in 1926) amalgamated with the Japan Tourist Bureau (set up to attract tourists from abroad) in 1934 to form the foundation known as Japan Tourist Bureau, which took on the task of publishing the *Steam Train Timetable*. That foundation evolved through reorganizations and name changes into Toa Ryokosha, Toa Kotsu Kosha, Nihon Kotsu Kosha, and then into JTB. The current publisher, JTB Publishing, is a member of the JTB Group. This is why the *Steam Train Timetable* published in April 1925 is regarded as the first JTB Timetable that reached issue 1000 in April 2009.

Proof that the current timetable is descended from the service timetable compiled by Japan Government Railways is on the 1000 covers of (JTB) timetable with the words 'Compiled by Japanese Ministry of Railways, Edited by Ministry of Transport, Edited by Japanese National Railways, and Editorial Supervision by Japanese National Railways'.

Nevertheless, this way of doing things came to an end in 1987 when Japanese National Railways (JNR) was privatized and split into six passenger companies and one freight company. These seven companies decided to publish their own unified timetable as the *JR Timetable* using Kosai Shuppansha (now Kotsushimbunsha). As a result, 'editorial supervision' vanished from the *JTB Timetable*. It reminds us of the removal of the two kanji characters meaning 'official' from the *Official Steam Train and Steam Ship Travel Guide* when it was reproduced by the Japan Culture and Tour Association as the *Steam Train Timetable*, which became the inaugural edition of the *JTB Timetable*.

State of Timetables in Japan

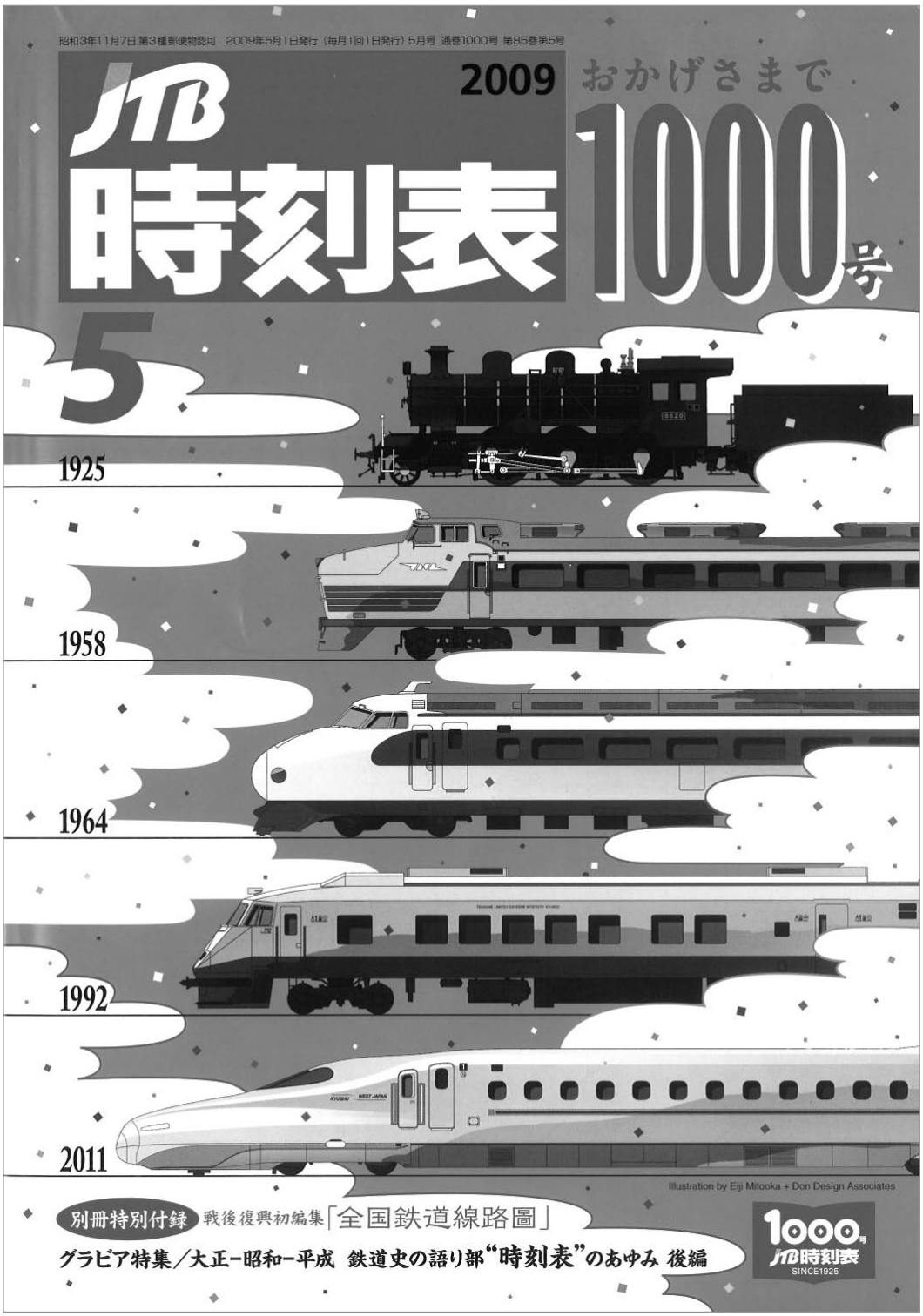
Trains in Japan almost always run on time in accordance with the timetable. This punctuality does not stop at trains, buses and planes run on timetables scheduled to individual minutes and are adhered to in actual service. This is something Japanese are proud of. And, it is a visage of Japanese life that gives existence to "timetables", records of transport service times. If train times were arbitrary, and that arbitrariness the normal state of affairs, there would be no significance in having a timetable.

Looking back at Edo-period (1603–1868) Japan, historians believe there were 30,000 to 50,000 time bells, gongs and drums nationwide in castles, castle towns, and Buddhist temples. They gave order to daily life by signalling curfew times, opening and closing times of castle gates, etc. Perhaps, people became subliminally aware of the importance of time in their societies and this nurtured the tendency to appreciate punctuality today—in other words, maybe it explains the on-time train services we have today.

Presently there are two companies—JTB Publishing and Kotsushimbunsha—that publish timetables. It used to be that three or four companies simultaneously marketed timetables, but a look at the past shows that the most prodigious number of publishers existed in the period touched on above, and that number has now become the two companies of today. Both companies output nationwide versions, mostly in a B5-size format, issued every month, and sold at bookshops and kiosks, etc. In terms of contents, there are no big differences, just minor variances in page arrangement and rail line order. Both publishing houses also produce compact booklets formatted for portability during trips. In addition, some of the private lines also publish their own timetables, which are sold at station kiosks along their rail lines.

As the name suggests, 'timetable' means a listing of times—for trains in this case. The station names are listed vertically, with trains arranged by departure time from left to right across the page. Time is depicted in the 24-hour clock system. Timetables in Japan first adopted the 24-hour clock back in 1942. Before then, the 12-hour clock was used with a.m. times indicated in standard font and p.m. times in bold. The target readers are intended to be people checking times for travel, but actually, the greatest number of users are service oriented like the general affairs departments and accounting departments of companies and public agencies, which use timetables to calculate, adjust and budget staff business trips. As mentioned later, some companies now use business trip calculators on the Internet, so the era where administrators and accountants always have several timetables on hand is coming to an end. A strong niche is occupied by people who purchase timetables for hobbies such as armchair travel and train photography. Among these people, some passionate railway fans buy the timetable every month although they do not intend to travel. Doubtless, these fans—no small number—are a unique aspect of Japan.

The explosive development of the Internet and mobile phones in Japan has led to growth in services supplying timetables via the Internet and phones. Consequently, the number of printed timetables is taking a nosedive. To counter this trend, we aim to promote the convenience of paper in terms of finding information at a glance and easy, safe storage. Moreover, it is the data prepared for printed publication that supports the electronic distribution now becoming so popular. In other words, there is no electronic timetable without a paper version!



Issue No. 1000 of *JTB Timetable*, May 2009 (Author)

Timetable editing

The timetable shows the times of all trains (about 35,000) at all stations (about 4600) on all lines (approximately 180) across Japan operated by all JRs in the group. However, on lines where the traffic is consistently at very high frequency, such as on the Yamanote Line in Tokyo and the Osaka Loop Line, only the times of the early and late services are given, with the remainder expressed as interval between trains. The timetable also includes schedules for all the nationwide private railways, inter-city express buses, regular buses, cable railways and aerial cableways in major tourist locales and other places, regular ferries and ships, domestic flights, international routes departing from and arriving in Japan, and other routes such as tourist buses, regular cruises and international shipping routes. Every month, the times of some 850 companies have to be checked for whether or not there

are any changes. Here, it should be noted, that not all the stations and stops of the private railways and bus services are included. In fact, hardly any such services are listed fully because of space issues, and these are explained when omissions are made.

Timetable editing starts each month as soon as the necessary materials have been collected from the JRs and other companies. There is a specialist contact desk for material from JR and material comes in daily via this desk. As described below, non-JR companies mail in their changes. A galley proof of the previous month's timetable is revised in red ink based on the new data, and the editing is performed using a specialist system according to the red-ink revisions. Unfortunately, the JR materials are all paper based and there is no compiled computer data. The editorial staff input all the timetable changes in accordance with the provided material to create the data for trains. When the train times are in the computer, the timetable page for that train is arranged and the data for the entire page settled. Next, each page is printed and proofed. Conversely, pages for private railways are compiled in accordance with the replies to the monthly letters of enquiry sent to the transport companies who return them with any changes. The editorial staff uses these replies to compile drafts. From here on, any queries are resolved by telephone or fax with requests for additional details.

Although somewhat old-fashioned, coloured pencils are still used for corrections. Generally, light blue and yellow pencils are used to strike through times that have been checked because the times can still be seen and do not mark surrounding areas when paper is copied or faxed, so numbers remain recognizable. Great care is taken in proofreading, with at least four people—the data supervisor, page supervisor, deputy chief editor and chief editor—quadruple checking the materials.

When mistakes are found, the data is corrected and printed again. While this process is going on, schedules or service dates sometimes change, so revising and correcting is repeated right up to the deadline. Next, the data is passed for printing; page proofs are okayed in units of 16 or 32 pages and moved on. A day or two after the final proofs are passed, the 1000+ pages are bound and shipped to bookshops, ready for the general public.

The schedule of services in the JR group of passenger operators are revised about once a year. A revision may increase or decrease the numbers of services, etc., meaning the number of timetable pages will be wrong. As a consequence, when the JR schedule is revised, advanced research of train number and service flow is required to enable page-number adjustments and layout changes. In addition, layout changes may be needed for private railways, as well, because they have extended or closed lines or changed routes.

The War on Weight

One copy of the timetable weighs about 950 g and each monthly copy must be sent to subscribers. We have a bulk mail contract with Japan Post, because its 3rd-class mail for printed matter is inexpensive. However, the special rate requires the posted item to weigh less than 1 kg. In recent years, courier delivery services have provided an alternative means to deliver publications but so many of the timetables must be delivered that the costs add up. As a result, a war has been waged on weight to allow continued use of 3rd-class mail. In earlier days, there were fewer pages, so weight was not an issue, but following the JNR privatization and division, the number of services increased and weekend schedules infiltrated the timetable, all adding up to a dramatic leap in the number of pages. To offset this, a special thinner, lighter, and stronger paper is used to cut weight but when a supplement had to be added to deal with time revisions for express trains prior to a schedule revision, there was a real fear that the timetable would exceed 1 kg. There was no alternative but to trim the four sides by 1 mm, which did the trick, and saved postage.

The timetable production system has evolved with the times, going from letterpress, through computerized photo-setting, and on to the current digital system introduced from the May edition of 2000. And, keeping up with the times, this present system is used both for printing the paper timetable and for maintaining the Internet database.

Nevertheless, whatever advances are made in technology, whatever developments in machinery, the basic task of timetable production is proofreading by human eye. ■

Momoko Kawai

Mrs Momoko Kawai was an editor of *JTB Timetable* at JTB Publishing Co. She is currently an editor of other railway related publications.