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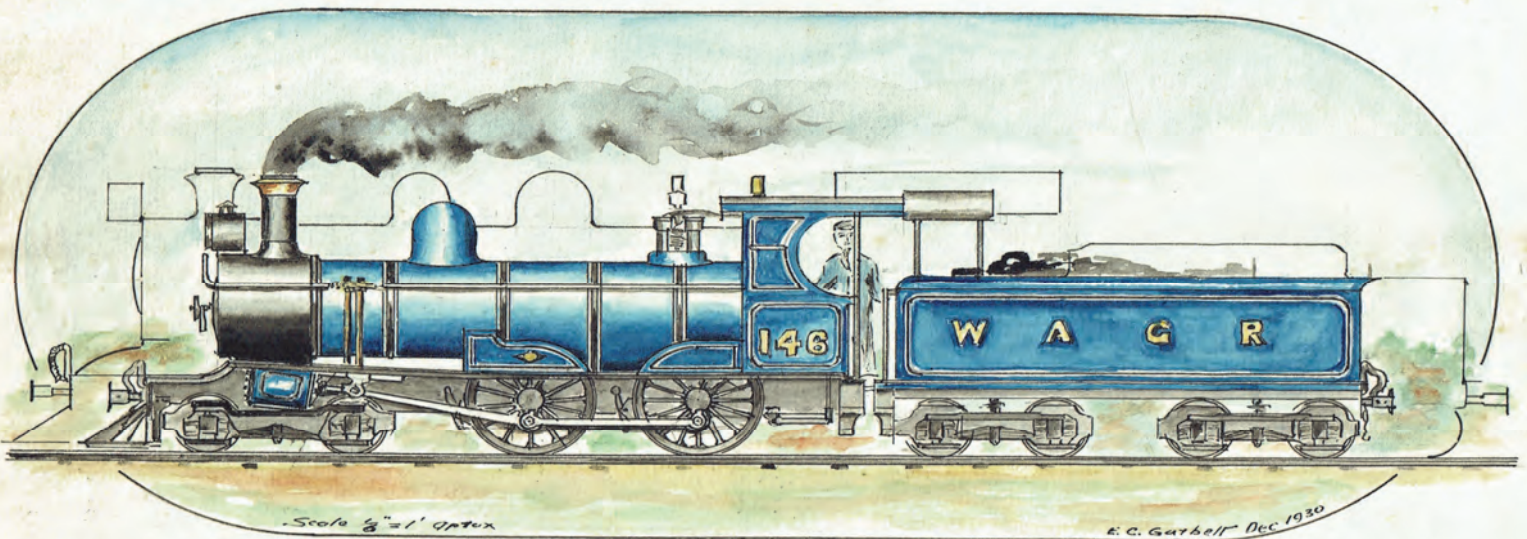
# The Times

December 2014

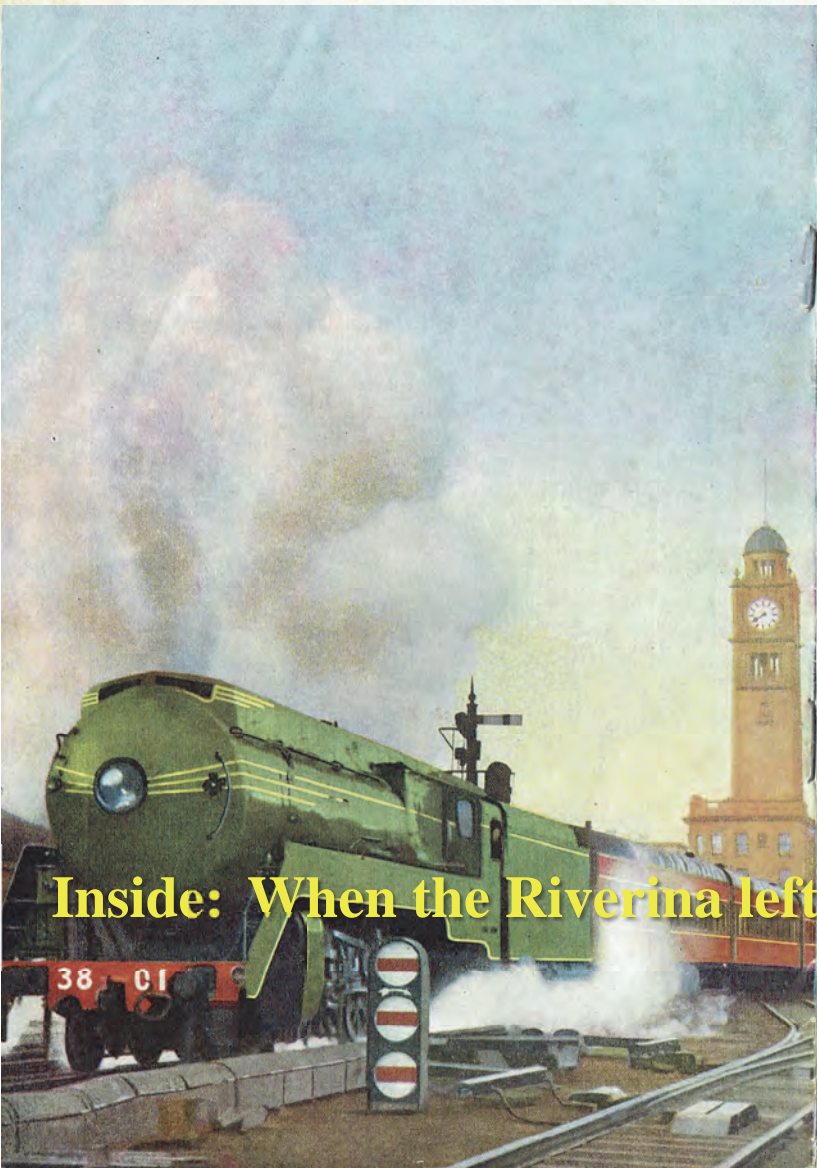
A journal of transport timetable history and analysis

*Compliments of the Season*

*From E. C. Garbett  
 West Australia  
 Dec 1930*



*W. A. G. R OLD R CLASS as painted in the early days*



**Inside: When the Riverina left town**

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**A NEW STANDARD  
 IN  
 COUNTRY TRAIN SERVICE**

# The Times

A journal of the Australian Timetable Association Inc. (A0043673H)

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# How Fast TurboProps?

JIM WELLS

On November 17<sup>th</sup> Qantaslink commenced services from Australia's newest airport, Brisbane West Wellcamp Airport (code WTB). The airport is near Toowoomba, Queensland and has been privately built.

The timetable for a Tuesday is shown on the next page.

It's a pity that Qantaslink doesn't have an evening service from Toowoomba.

What is interesting about the timetable for the services to Sydney is the apparent speed.

Ignore the quoted 'duration' times, these have been miscalculated. Be aware also that Sydney for the date shown is on Eastern Daylight time, Wellcamp on Eastern Standard Time, one hour behind as Queensland doesn't have daylight saving.

One wonders if the aircraft used on the morning southbound works back on the first northbound. Probably not as the turnaround time in Sydney is only fifteen minutes.

Also of interest is the stabling of the aircraft at Wellcamp overnight, which indicates that Qantaslink has confidence in the security arrangements provided.

The block time (off blocks to engine shut down) southbound is 1hr 35min. If we were to travel from Brisbane to Sydney the time would be most likely the same. But Brisbane:Sydney is serviced by jets, Toowoomba by turboprops. How come the Toowoomba service is so fast?

The Distances From website shows the Brisbane:Sydney route as being 733km, Toowoomba (CityAirport):Sydney as 706km, almost the same. One can presume that the Wellcamp to Sydney distance would be similar.

Ignoring this, there are two aspects to consider: ground time and flight time, the latter being dependent principally on cruise speed. For a primer on aircraft cruise speeds see the box.

At Wellcamp the ground time, i.e. the time between blocks off to take off, would be very short. The terminal is close to the runway and there would be no delays queuing behind other aircraft or waiting turn for take off between arrivals. This would not be the situation at Brisbane airport, which is quite large and busy.

The other point is that turboprops tend to have shorter ground times at airports generally than jets. They don't use aerobridges so there's no push back and with good field performance their time on runways tends to be shorter. For example a turbo-prop landing on Sydney's 34R runway (main North:South) will turn off the runway not too far from terminal 2 and so will have a short taxi.

Now to cruise speed. The aircraft that Qantaslink uses on this service is a twin engined 76 seater DHC8-400, recent versions being known as a Bombardier Q400. Seat pitch is 31in, seat width 17in.

DHC stands for de Havilland Canada. They were well known for the DHC4 Caribou STOL airlifter used by the RAAF for many years and the DHC6 Twin Otter, much loved by small airlines flying very short distances.

Their first attempt at the Fokker F27 Friendship (the aircraft that dominated regional services in the 60's and 70's) replacement market was the DHC7 of 1975. Only 113 were built up to 1998, the difficulty being that the aircraft had four engines which made it expensive to buy and operate.

The DHC8 first appeared in 1984 as a twin engine version of the DHC7. Over one thousand have been built and more are on the way, including some for Qantaslink.

What is remarkable is how the type has morphed from the 100 series (cabin length 9.1m, cruising speed 500 km/h) through the -200 and -300 series to the -400 series (18.8m, 667 km/h) first introduced in 2000. The penalty for this change, apart from cost, is a much longer take off run for



the series 400.

The 400 is very long but low to the ground; pilots would need to take great care when taking off and landing to avoid the dreaded tail scrape.

de Havilland Canada was sold to Boeing and subsequently to Bombardier who are big in railway equipment too.

Time for a sanity check. Qantas' flight time for a Q400 Sydney to Albury flight is 1hr 10 min. Distance is 462 km. Toowoomba is another 244 km which at 667 km/h should take a bit over 20 minutes. So the time flight time for Toowoomba (1hr 35/40min) looks quite reasonable.

If the block time for turboprops on short sectors is not much longer than for jets why don't the airlines use them more? Indeed they tend if both front and rear doors are used to have very quick passenger boarding times so for passengers the time from entering the plane to leaving it after landing, which can be much longer than block time, is shorter. The offset is having to cross often wind swept and rainy tarmacs.

The lack of large bins for cabin baggage is also an issue.

No aircraft manufacturer offers a large turbo prop at this time. The view in the Unites States is that passengers regard anything with propellers as old fashioned. This has encouraged the makers of smaller jets such as Bombardier with the CRJ and C series and Embraer (E-jet series, 80 passengers up, Virgin Australia has some) to maintain their business.

In any case the difference between turbo props and jets has diminished over time. Modern jets use high bypass engines where a large proportion of the air compressed by the front fan doesn't go through the rest of the engine. To this extent the fan is operating as a propeller.





### Flights Out

From \_\_\_\_\_

## Wellcamp to Sydney

Sort by: Direct Flights Price Duration Departure



From	To	Flight
<b>05:20</b> Wellcamp Duration: -8h -25m	<b>07:55</b> Sydney Stops: 0	 <b>QF2015</b>
<b>09:35</b> Wellcamp Duration: -8h -25m	<b>12:10</b> Sydney Stops: 0	 <b>QF2017</b>

### Flights Back

From \_\_\_\_\_

## Sydney to Wellcamp

Sort by: Direct Flights Price Duration Departure

From	To	Flight
<b>08:10</b> Sydney Duration: 11h 40m	<b>08:50</b> Wellcamp Stops: 0	 <b>QF2016</b>
<b>17:55</b> Sydney Duration: 11h 40m	<b>18:35</b> Wellcamp Stops: 0	 <b>QF2018</b>

#### Aircraft Speeds

*(Note: data has been sourced from Wikipedia and other references and may not be consistent, nor applicable to all variants of the type of aircraft mentioned.)*

The concept of maximum speed is of little value for commercial aircraft. It would be achieved with an unpractical fuel load and an uneconomic payload.

What is normally quoted is cruising speed; sometimes with either maximum payload or maximum fuel.

Regular passenger transport reached critical mass in the 1930's with the all metal Douglas DC3 and, to be fair, the Junkers J52/3 (Hitler flew in these). The DC3 cruised at about 250 km/h; flights between Melbourne (MEL) and Sydney (SYD) took about 4 hours with a stop at Wagga Wagga.

The Victorian Railway's Commissioner at the time, Sir Harold Clapp, took this trip and was mightily impressed. He can't have suffered a weather or technical delay.

After the Second World War larger pressurised aircraft such as the Douglas DC6B came into service at speeds around 400 km/h and times for MEL:SYD came down to around 2 hours.

Then we got the first turboprops. The Vickers Viscount was smallish and not much faster than the DC6B; passengers liked it for smoothness so there occurred the infamous 2 for 3 swap of aircraft between the airlines of the time, TAA and ANA.

The aircraft though that made the difference was the Lockheed Electra introduced

by both domestic airlines about 1958 (and Qantas). Cruising speed was now 650 km/h; block times came down to MEL:SYD 1 hr 20 min; SYD:MEL 1 hr 30 min.

It's interesting that the early jets such as the Boeing 727 had cruising speeds higher than later models. The 727 entered Australian service around 1964; cruising speed was 980 km/h. MEL:SYD was traversed in 1 hr 10 min; SYD:MEL 1 hr 15 min, only a few minutes less than the Electra. The 727 had a rear stairway under/between the engines as well as the usual front door so loading times were short.

As is well known times on MEL:SYD have blown out to 1 hr 20/30; the same as the Electra of nearly 60 years ago. Reasons include slower aircraft (the Boeing 767 cruise speed is only 910 km/h), the third runway at Sydney ("we have a lot of driving to do") and the increased likelihood of traffic delays both on the ground and in the air.

What is unfortunate for Qantas passengers is that airline's policy of not using the rear door on Boeing 737's as Virgin do at airports with aerobridges.

For the record the Boeing 737-800 cruise speed is 828 km/h; the competing Airbus A320's is 900 km/h. This is a significant difference. Between MEL and the Gold Coast (OOL) Tiger and Jetstar with A320's have a two hour block time; Virgin with B737's takes 10 minutes longer.

Turning now to regional turboprop aircraft, the classic Fokker F27 Friendship cruised at 480 km/h. Its replacements include the DHC7 (1975, 500 km/h, Fokker F50 (1987, 512 km/h), Saab 340 (1983, 467 km/h), and the ATR 42 (1984, 554 km/h).

The DHC8-400 cruises at 667 km/h, a clear 100 km/h faster than the other types mentioned.

It has competition from ATR in the form of the stretch of the ATR 42, the ATR 72 (1988) which Virgin operates. But this aircraft is in the twentieth century when it comes to speed – only 509 km/h.

Let's compare the two very similar looking aircraft to see why the Q400 is so much faster. There are two aspects of note.

The first is wing loading; the higher the better for speed because of reduced drag but with an adverse affect on field performance. Wing loading for the Q400 at maximum take off (MTO) weight is 464 kgs per sq m, for the 72-600 it is a much lower 374kg . Take off run for the Q400 (MTO) is 1,402m which, surprisingly is not much longer than the 72-600's 1,333m.

Where the two really differ is with engine power. Both use the same basic engine, the Canadian Pratt and Whitney 100 series turboprop. The ATR 72-600 has PW127M's with a maximum continuous rating of 1,953kw. The Fokker F27 had Rolls Royce Dart engines rated at 1,678 kw.

The Q400 uses the much more powerful three spool PW150A for 3,782kw, nearly double the power. To put this into perspective for us railway types, a single engine on the Q400 has more power than any diesel locomotive operating in Australia.

Obviously this comes at a cost for airlines with worse fuel economy balancing greater aircraft availability and passenger appeal. For more on the engines see <http://www.pwc.ca/en/engines/pw127m>.

# Three *Letters*

ALBERT ISAACS, CHRIS BLOWER, CONRAD SMITH

## Unbalanced Trains

What a remarkable coincidence! In my letter which appeared in *The Times* for November 2014 (page 7) one of the two topics discussed were trains which, according to Public timetables, appeared to be unbalanced. My letter was actually written in September 2014 and little did I realise when I wrote it that VLine were about to introduce another such service in this category.

A news item in Table Talk for October 2014 explained that amongst the various Victorian timetable changes of 12th October, there is now a fourth Up service Shepparton-Melbourne, leaving Shep at 0515 Monday-Friday and arriving at Southern Cross at 0759. However, there are still only three Down services advertised in Public TTs.

So! What really happens?

This train is actually an extension of the existing 0631 from Seymour, arriving from Shep at 0620. The Shepparton train is formed by an empty cars set (N loco and N set) which is stabled overnight (or part of the night) at Seymour and now leaves Seymour empty cars at 0401.

When I wrote my letter to *The Times*, who would have guessed that there was about to be a contemporary example of unbalanced trains? Hmm!

Historically, there is another example of unbalanced pass services on the Shepparton/Goulburn Valley line. Obviously, it is easier from an operations perspective for a train to be split than for two trains to be joined, particularly if it's a loco hauled train. For many decades, several Goulburn Valley trains (Shepparton-Numurkah-Tocumwal/Cobram) were combined with Albury services on the Down, Spencer Street-Seymour, where they were split. On the Up, both the Goulburn Valley and Albury trains usually ran on completely different paths right through to Melbourne, thus avoiding having to combine the trains at Seymour. Of course in this case, we see an unbalanced service that doesn't require any empty running of the rolling stock. In some cases, there was an extra loco attached to the Down Spencer Street-Seymour, but it was more usual to provide the Down Seymour-Goulburn Valley with a loco from Seymour Loco Depot.

**Albert Isaacs**

## Route 101

Somewhat belatedly, I am writing in response to your article in the June issue of *The Times* about the London 101 bus route.

During and just after WW2, I lived near Bexley, Kent, and had cousins who lived in Dagenham, Essex. Being a somewhat precocious public transport user, I remember well the first solo trip I made to visit my cousins. I would not have been more than 8 years old at the time.

After the eerily silent trip from Bexleyheath to Woolwich on the 696 trolleybus, I crossed the Thames on the Woolwich Ferry. I can still smell the warm lubricating oil emanating from the engine room.

Waiting at North Woolwich was a line of Guys on the 101 route, some in their wartime brown livery. There must still have been bridge damage because I recall being diverted through one of the Royal Docks itself.

I remember that at East Ham station I had to be lifted up to the ticket window by the passenger behind me. When my District Line train arrived at Dagenham Heathway, to my horror I discovered that I was to sole occupant of a carriage with manually-operated doors. I just managed to get them open enough to squeeze through on to the platform before the train departed for Upminster.

My cousins moved soon after to Upminster and I subsequently made many journeys to visit them there (sometimes using the Gravesend-Tilbury ferry). But that first trans-Thames trip has stuck in my mind ever since.

Incidentally, until its cut-back to Gallions Reach (which I assume is somewhere in the vicinity of what I knew as the Beckton Gas Works slag heap), the 101 was one of a fast dwindling list of routes that had not changed since WW2. The only such route that I have left on the list is the 24 (Pimlico to Hampstead Heath) but maybe there are others.

Thanks for reviving the memory.

**Chris Blower**

## The Nambucca and Roscrea Problems

Your article on the last page of this month's [November 2014] *The Times* needed three readings to realise just what was going on, and a quick spin on Google Street View confirmed my suspicions: two tracks, one platform, familiar to me as the Roscrea problem.

I was on the actual train which stopped in Roscrea at the abandoned platform whilst the opposing direction service occupied the one which is still in use. Tokens are exchanged here via the signal box on the abandoned platform.

Courtesy of the Internet Archive's Wayback Machine I was able to download the 2011 (next page, top) and 2012 (next page, middle) pdf's which together with the 2013 [current, next page, bottom] pdf show the rise and fall of Roscrea's fortunes.

In 2012, to satisfy local demand, two evening trains were dispatched from Limerick to the junction on the main line at Ballybrophy, each returning the same way. They crossed at Roscrea, but the giveaway is the presence of identical Saturday timings with no other train to cross: the weekday train simply stops at the abandoned platform to cross the other train but passengers are unable to get on or off.

At a push, a Nenagh to Roscrea passenger could run on to Ballybrophy and come back to the useable platform 66 minutes later, but Roscrea to Ballybrophy is impossible at this time. Presumably the extra train was not a success -- it lasted only the year.

**Conrad Smith**

Conrad wins the kewpie doll. The near-identical images below of passengers at each station, opposite the crossing loop explain it all.



		2	2	2	1 2	2
		MON TO FRI	MON TO SAT	MON TO SAT	MON TO SAT	MON TO SAT
DUBLIN Heuston	Dep	....	09.00	....	17.25	....
Newbridge	Dep	..	..	..	..	..
Kildare	Dep	....	....	....	18.06	....
Portlarington	Dep	..	..	..	18.20	..
Portlaoise	Dep	....	09.47	....	18.31	....
BALLYBROPHY	Arr	..	10.01	..	18.46	..
BALLYBROPHY	Dep	....	....	10.05	....	18.54
Roscrea	Dep	..	..	10.25	..	19.14
Cloughjordan	Dep	....	....	10.46	....	19.35
NENAGH	Dep	07.45	..	11.04	..	19.53
Birdhill	Dep	08.12	..	11.31	..	20.20
Castleconnell	Dep	08.20	..	11.40	..	20.29
LIMERICK	Arr	08.40	....	12.03	....	20.48

		2	1 2	2	1 2	2
		MON TO SAT	MON TO SAT	MON TO SAT	MON TO SAT	MON TO FRI
LIMERICK	Dep	06.25	....	16.45	....	17.45
Castleconnell	Dep	06.47	....	17.05	....	18.07
Birdhill	Dep	06.56	....	17.14	....	18.18
NENAGH	Dep	07.26	....	17.40	..	18.45
Cloughjordan	Dep	07.44	....	17.58	....	....
Roscrea	Dep	08.04	..	18.18	..	....
BALLYBROPHY	Arr	08.27	....	18.40	....	....
BALLYBROPHY	Dep	..	08.36	..	19.19	..
Portlaoise	Dep	....	08.50	....	19.34	....
Portlarington	Dep	..	..	..	19.45	..
Kildare	Dep	....	....	....	....	....
Newbridge	Dep	..	09.15	..	..	..
Sallins	Dep	....	09.25	....	....	....
DUBLIN Heuston	Arr	..	09.50	..	20.28	..


		2	2	2	1 2	2	1 2	2
		MON TO FRI	MON TO SAT	MON TO SAT	MON TO SAT	MON TO FRI	MON TO SAT	MON TO SAT
DUBLIN Heuston	Dep	....	09.00	....	17.05	....	18.00	....
Newbridge	Dep	..	..	..	..	..	..	..
Kildare	Dep	....	....	....	....	....	....	....
Portlarington	Dep	..	..	..	..	..	..	..
Portlaoise	Dep	....	09.47	....	....	....	....	....
BALLYBROPHY	Arr	..	10.01	..	18.04	..	19.05	..
BALLYBROPHY	Dep	....	....	10.05	....	18.20	....	19.15
Roscrea	Dep	..	..	10.25	..	18.40	..	19.48
Cloughjordan	Dep	....	....	10.46	....	19.01	....	20.08
NENAGH	Dep	07.45	..	11.04	..	19.19	..	20.27
Birdhill	Dep	08.12	..	11.31	..	19.46	..	20.54
Castleconnell	Dep	08.20	..	11.40	..	19.55	..	21.02
LIMERICK	Arr	08.40	....	11.59	....	20.14	....	21.22

		2	2	1 2	2	1 2	2	2	1 2
		MON TO FRI	MON TO SAT	MON TO SAT	MON TO FRI	MON TO SAT	MON TO FRI	SAT ONLY	MON TO SAT
LIMERICK	Dep	05.05	06.25	....	16.05	....	17.05	17.05	....
Castleconnell	Dep	05.25	06.47	....	16.25	....	17.25	17.25	....
Birdhill	Dep	05.34	06.56	....	16.34	....	17.34	17.34	....
NENAGH	Dep	06.03	07.26	....	17.00	....	18.00	18.00	....
Cloughjordan	Dep	06.22	07.44	....	17.18	....	18.18	18.18	....
Roscrea	Dep	06.43	08.04	....	17.38	....	18.42	18.42	....
BALLYBROPHY	Arr	07.05	08.27	....	18.00	....	19.04	19.04	....
BALLYBROPHY	Dep	07.09	..	08.36	..	18.16	..	..	19.19
Portlaoise	Dep	07.24	..	08.50	..	18.32	..	..	19.34
Portlarington	Dep	..	..	..	..	18.43	..	..	19.45
Kildare	Dep	07.48	..	..	..	18.56	..	..	..
Newbridge	Dep	07.55	..	09.15	..	19.03	..	..	..
Sallins	Dep	08.03	..	09.25	..	..	..	..	..
Hazelhatch	Dep	08.12	..	..	..	..	..	..	..
Adamstown	Dep	08.17	..	..	..	..	..	..	..
DUBLIN Heuston	Arr	08.33	..	09.50	..	19.30	..	..	20.28

		2	2	2	1 2	2
		MON TO FRI	MON TO SAT	MON TO SAT	MON TO SAT	MON TO SAT
DUBLIN Heuston	Dep	....	09.00	....	18.00	....
Newbridge	Dep	..	..	..	..	..
Kildare	Dep	....	....	....	....	....
Portlarington	Dep	..	..	..	..	..
Portlaoise	Dep	..	09.43	..	..	..
BALLYBROPHY	Arr	..	09.58	..	18.54	..
BALLYBROPHY	Dep	..	..	10.05	..	19.00
Roscrea	Dep	..	..	10.25	..	19.21
Cloughjordan	Dep	..	..	10.46	..	19.43
NENAGH	Dep	07.45	..	11.05	..	20.02
Birdhill	Dep	08.13	..	11.33	..	20.29
Castleconnell	Dep	08.22	..	11.43	..	20.38
LIMERICK Colbert	Arr	08.45	..	12.04	..	21.00


		2	1 2	2	1 2
		MON TO SAT	MON TO SAT	MON TO SAT	MON TO SAT
LIMERICK Colbert	Dep	06.30	07.40	16.55	....
Castleconnell	Dep	06.53	..	17.15	..
Birdhill	Dep	07.03	....	17.24	....
NENAGH	Dep	07.39	..	17.50	..
Cloughjordan	Dep	07.57	....	18.08	....
Roscrea	Dep	08.17	..	18.28	..
BALLYBROPHY	Arr	08.41	08.45	18.51	....
BALLYBROPHY	Dep	..	08.45	..	18.55
Portlaoise	Dep	....	09.00	....	19.08
Portlarington	Dep	..	..	..	..
Kildare	Dep	..	..	..	..
Newbridge	Dep	....	09.26	....	....
DUBLIN Heuston	Arr	..	09.55	..	20.00

**3** Baile Átha Cliath – Baile Uí Bhróithe – Luimneach (bealach Aonach Urmhumhan)  
Dublin – Ballybrophy – Limerick (via Nenagh)  
Bailí ó 08.05.2011 go bhfógrófar a mhalairt  
Valid from 08.05.2011 until further notice




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**3** Baile Átha Cliath – Baile Uí Bhróithe – Luimneach (bealach Aonach Urmhumhan)  
Dublin – Ballybrophy – Limerick (via Nenagh)  
Bailí ó 05.03.2012 go bhfógrófar a mhalairt  
Valid from 05.03.2012 until further notice



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**3** Baile Átha Cliath – Baile Uí Bhróithe – Luimneach (bealach Aonach Urmhumhan)  
Dublin – Ballybrophy – Limerick (via Nenagh)  
Bailí ó 20.01.2013 go bhfógrófar a mhalairt  
Valid from 20.01.2013 until further notice



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# The story of foreign language timetables in Japan

by Yoshiki Soga



**H**ow would you handover a ransom from an express train to a kidnaper waiting alongside the tracks? After all, the passenger cars are all air-conditioned, and the windows don't open...

This was the climactic dilemma of the 1963 suspense film *High and Low* by world-famous director Akira Kurosawa. The venue was the *Kodama (Echo)* Limited Express, the pre-shinkansen crowning achievement of Japanese railways, making the run between Tokyo and Osaka in 6.5 hours. Kurosawa was inspired to make the film after reading Ed McBain's novel *King's Ransom*. However, the film's adaptation of handing over the ransom was achieved thanks to the complex schedules and on-time operation that are the pride of Japanese railways.

In such a railway powerhouse, Japanese railway timetables have long been a treasured necessity for travel. At one time, millions were published monthly, making them hidden best-sellers. However, as an island nation, there are no cross-border services, so Japanese timetables have a definite Japanese flavour targeted at an almost exclusively Japanese audience. Few timetables have ever been mainly in English or other foreign languages, with notable exceptions being simplified versions distributed during the 1964 Tokyo Olympics and other expositions when many foreign visitors were in Japan.

Most of these rare timetables were taken abroad when the visitors left, so people in

Japan rarely glimpsed such items. Because timetables are a practical item that become useless as soon as the timetable changes, most were thrown away, significantly reducing the chance of finding remaining versions today. However, you might be lucky enough to discover a rare copy at a local flea market or in a used-book store, and if you do, this article could help you decipher it.

## The Early Days

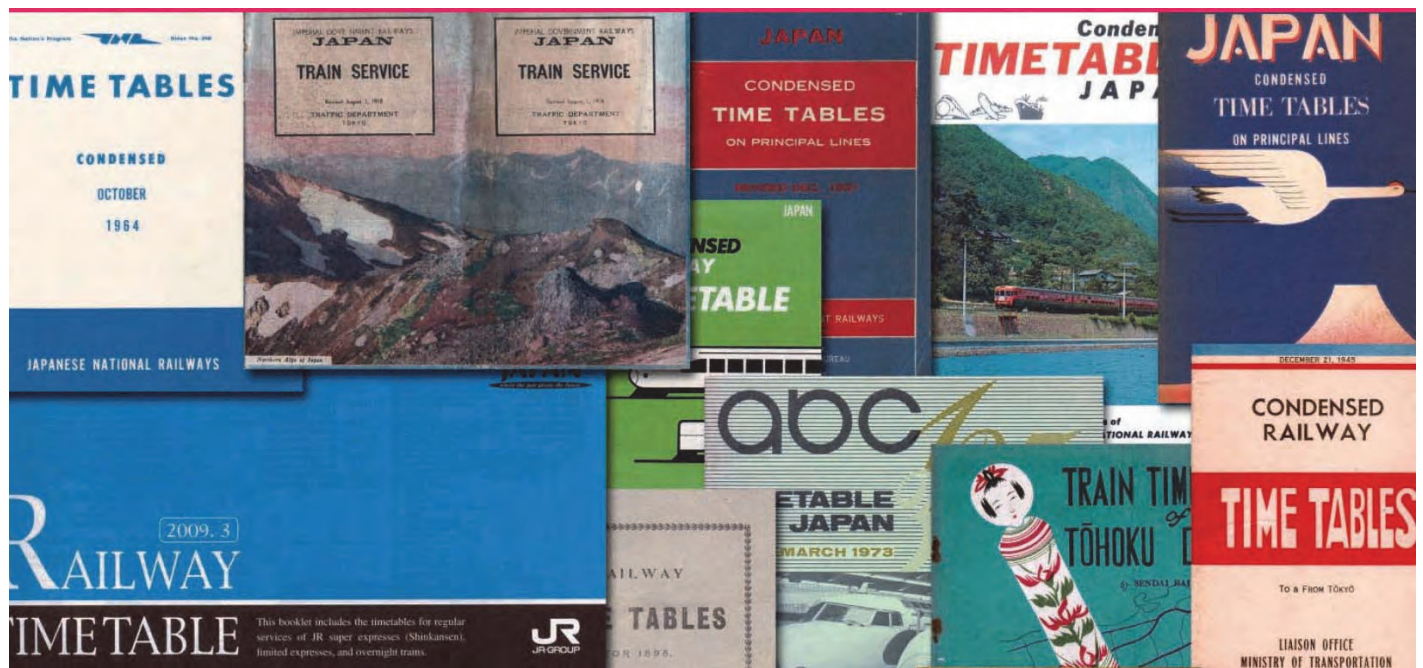
The world's first steam-hauled passenger railway started in England with the opening of the Liverpool and Manchester Railway in 1830. Soon after, the first edition of Bradshaw's Railway Time Tables was published, becoming synonymous with rail travel. At that time, Japan was still ruled by a shogun, his daimyo (lord), and samurai (warrior), and any contact with the outside world was very restricted. It was to be another 37 years before Japan opened up to the world with the restoration of the Meiji Emperor. Japan's first railway started 5 years later in 1872 with a short 18-mile single track between Shimbashi in Tokyo and Yokohama. A year later in 1873, Thomas Cook published his first timetable, and Cook's timetables are still used worldwide today.

In the early days, Japanese railways were operated by foreigners working for the Japanese government. We can guess that these people worked in English, but whether or not English timetables were released

to the public is unclear. However, Japan was now being visited by businessmen, traders and tourists from abroad, especially from North America and Europe, so we can easily imagine demand for foreign-language timetables as railway lines spread through the nation.

The first monthly timetable in Japan was the *Train & Steamer Travel, Guide (Kisha Kisen Ryokou Annai)*, which was first published in 1894 for Japanese users, making it practically unintelligible to people who could not read Japanese. In addition to station names, even the numbers in the tables were in Japanese kanji characters instead of the Arabic numerals in general use today. The situation was the same for all timetables issued in Japan. For this reason, hotels with foreign guests would create and distribute booklets with schedules written in English. For example, the timetable issued in 1898 by The Grand Hotel had just six pages centred on schedules for lines between Tokyo and Kobe along with services to Hakone (Kodzu), Nikko, and Yokosuka. The Grand Hotel was a leading Western-style hotel in Yokohama but it burned down in the aftermath of the 1923 Great Kanto Earthquake and was never rebuilt. The Hotel New Grand, opened later, bears its name today.

Incidentally, the Welcome Society was formed at this time by some businessmen and others to provide assistance to foreign visitors to Japan. As a part of their service, they produced and distributed English



Rev. Oct. 1, 1938.		THROUGH SERVICE WEST															
		For Kyōto, Ōsaka, Simonoseki,															
Km.	Stations	Tubame										Kamome		Sakura		Huzi	
		27	29	113	31	123 LEX	11	105	111	33	101	EX	9	21	1031 LEX	3 LEX	1 LEX
0.0	Tōkyō	d.	5 30	6 40	...	7 45	9 00	...	...	9 15	10 30	10 45	1 00	1 30	3 00	3 30	
1.9	Sinbasi	d.	5 34	6 44	...	7 49	↓	...	...	9 19	23	10 34	10 49	↓	↓	23	3 35
6.8	Sinagawa	d.	5 42	6 53	...	7 58	↓	...	...	9 28	10 42	10 57	↓	↓	↓	3 44	
28.8	Yokohama	d.	6 04	7 16	...	8 21	9 27	...	...	9 51	11 05	11 20	1 28	1 58	3 27	4 07	
46.5	Ōhuna	d.	6 22	7 34	...	8 40	↓	...	...	10 09	11 23	11 39	↓	↓	↓	4 25	
83.9	Odawara	d.	7 17	8 27	...	9 41	X	...	...	11 02	...	11 57	0 33	↓	2 47	4 16	5 18
104.6	Atami	d.	7 50	8 59	...	10 13	↓	...	...	11 34	...	0 21	1 05	↓	3 09	4 38	5 50
126.2	Numazu	d.	8 24	9 33	...	11 03	11 00	...	...	0 08	...	0 48	1 41	3 04	3 35	5 02	6 22
180.2	Sizuoka	d.	9 42	10 53	...	0 22	11 48	...	...	1 51	...	1 48	3 10	3 53	4 22	5 49	7 40
257.1	Hamamatsu	d.	11 29	0 55	...	2 11	↓	...	...	3 39	...	3 09	5 01	↓	5 31	6 58	9 26
293.6	Toyohasi	d.	0 25	1 51	...	3 07	↓	...	...	4 35	...	3 47	5 53	X	6 03	7 30	10 20
366.0	Nağoya	a.	2 02	3 28	...	4 44	2 17	...	...	6 10	...	5 01	7 35	6 28	7 00	8 27	11 52

railway timetables. However, as the name suggests, it was a society characterized by the activities of interested progressive private citizens. There was no government movement to promote tourism to Japan at that time.

To catch up quickly with the already highly industrialized Western nations, latecomer Japan put great effort into advancing its national power. It established government-run factories in various locations, working to develop an export industry. At the same time, Japan attempted to secure interests in mainland Asia and gain a greater say in international society through the 1894 Sino-Japanese War and 1904 Russo-Japanese War. In such an age, where railways were considered essential for industrial advancement and to a powerful war machine, new tracks were built in quick succession. Moreover, most private lines were nationalized in 1906; private lines considered important in forming a nationwide network were bought out and operated by the government. As a result, Japan's 1500 km of government-operated railways in 1900 grew quickly to 7800 km by 1910.

Once the foundations were laid for government administration of nationwide railways, it was natural for official passenger timetables covering the nationwide network to be published by the railway authorities. The government railways' timetable issued in June 1910 differed greatly from the private timetables written in kanji characters because it used Arabic numerals and included English notes to allow use by foreigners. From hereon, the government railways continued issuing new official timetables at every train diagram change. Around this time, momentum gathered at government level to actively promote foreign tourism to create international goodwill and stimulate the economy by securing foreign capital. In 1912, railway authorities, shipping companies, prominent

hotels, and others sponsored the establishment of the Japan Tourist Bureau, the forerunner of today's JTB, Japan's largest travel agency. Due to these developments, the government railways started issuing English and Japanese timetables, marking the appearance of full-fledged English timetables in Japan.

Let's look at the details of an English language timetable for August 1918. The covers advertise places of scenic beauty in Japan, and this issue had a photograph of the peaks of the Northern Alps of Japan. The mountain areas of Karuizawa and the northern Chubu region were talked about and developed from the late 19th century by missionaries and other foreign visitors to Japan as a place to escape the sultry summer heat of the coastal Kanto Plain and the cover evokes this background. The book is 7.5 by 9 inches, and its format is Western style where it can be folded in half. It has 82 pages, and is bound with a fold-out index map in the middle. An interesting feature is the western Table Number format. By referring to the chart for the station name and Table Number at the beginning, one could easily find the relevant table for departures and arrivals. Times are in the 12-hour style with a.m., in light type and p.m. in bold, demonstrating the Western standard for timetable formats of the period.

Of course, services in Japan were covered, but the timetable also includes the Korean peninsula and Taiwan—Japanese colonies at the time. Inclusion of continental China and the note Connecting Service between Japan and Russia demonstrated the immense scale covered. Connections to Russia were just one of the routes linking Asia and Europe, and after the Russo-Japanese War, this route was popularized as being much faster than ship. Due to international conflicts, such as World War I and the Russian Revolution, schedules within Rus-

sia were not noted, because routes were disrupted.

The inclusion of colonial railways in the timetable of a colonial power was quite unusual. Colonies of western nations were generally far from their ruling country, so there was no merit in including them and timetables for western colonies covered just those regions. In India, for example, Indian Bradshaw noted schedules for South Asia and surrounding British territories. In Malaya and the Dutch East Indies, local railway authorities and information bureaus issued timetables. In pre-World War II Japanese colonies, the local railway authorities—Government Railways of Chosen (Korea) and Taiwan Government Railways—issued their own timetables, but schedules for those railways were always also included in timetables for mainland Japan. The timetable for the South Manchuria Railway (SMR), which was established in 1906 to annexe the Russian-established Chinese-Eastern Railway and reigned in NE China for the next 40 years, is also in the Japanese timetable. However, railways in SE Asia that were under Japanese control during World War II were not noted in the timetables at all.

**Hand-in-hand with Rapid Growth of Railways**

At the same time, there was a revolutionary development in Japan's timetables—the start of sales of the official government railways timetable, which had previously been only for internal use. It was in an 8 by 9-inch, 226-page format, and much larger than the B6 timetables issued by the private sector. In effect, it was the inaugural issue of the JTB Timetable, which is still issued today and reached the 1000th issue 84 years later in May 2009 with much media fanfare. With Japanese timetables becoming more substantial, English timetables also changed from thin pamphlets to thicker book 'formats.



CONDENSED ALLIED MILITARY TRAIN SCHEDULES

Tōkyō-Kyōto Kure Sasebo Hakata					Yokohama-Sendai-Sapporo				
[AT] ALLIED LIMITED No. 1005	[AT] DIXIE LIMITED No. 1001	Kms.	Table A For complete schedules, see table 1, 3 and 82	[AT] DIXIE LIMITED No. 1002	[AT] ALLIED LIMITED No. 1006	[AT] YANKEE LIMITED No. 1201	Kms.	Table B For complete schedules, see table 44, 45, 58, 61, 93, 94, and 97	[AT] YANKEE LIMITED No. 1202
2015	0930	0.0	Lv Tōkyō	1910	0640	2230	0.0	Lv Yokohama	0645
2100	1010	26.1	Ar Yokohama	1326	0555	2245	26.1	Ar Tōkyō	0600
2119	1027	43.8	Ar Ōfuna	1808	0536	2334	28.2	Ar Ueno	0532
↓	↓	81.2	Lv Odawara	1734	1	0018	93.4	Lv Tsuchiura	0408
2249	1150	123.5	Ar Numazu	1652	0413	0122	144.9	Ar Mito	0305
2340	1237	177.6	Ar Shizuoka	1600	0309	0210	239.0	Ar Taira	0105
0102	1350	254.4	Ar Hamamatsu	1453	0150	0444	316.5	Ar Ikaranomachi	2310
0158	1346	307.9	Ar Gamagori	1359	0044	0605	390.3	Ar Sendai	2145
0256	1537	563.3	Ar Nagoya	1310	2344	0635	390.3	Lv Sendai	2125
0306	1547	563.3	Lv Nagoya	1500	2334	0625	433.1	Ar Kogota	2036
0346	1620	593.6	Ar Gifu	1252	2300	0924	483.2	Ar Ichinoseki	1927
0500	1731	443.2	Ar Maibara	1136	2156	↓	525.6	Ar Kurosawajiri	1
0600	1833	500.9	Ar Ōtsu	1050	2050	0227	538.1	Ar Hanamaki	1833
0612	1846	510.9	Ar Kyōto	1021	2028	1007	573.5	Ar Morioka	1736
0622	1856	510.9	Lv Kyōto	1011	2018	1015	573.5	Lv Morioka	1719
0727	2005	553.7	Ar Ōsaka	0933	1930	1015	637.6	Ar Ichinohe	1650
0801	2039	584.3	Ar Sannomiya	0855	1833	1229	682.6	Ar Shiruichi	1535
0914	2147	641.6	Ar Himeji	0728	1726	1217	689.3	Ar Mutsu-ichikawa	1519
1042	2316	730.2	Ar Okayama	0549	1547	1249	689.3	Lv Mutsu-ichikawa	1509
1055	2331	730.2	Lv Okayama	0540	1532	1306	703.5	Ar Furumaki	1450
1229	3.06	817.7	Ar Itozaki	0410	1359	1320	703.5	Lv Furumaki	1434
1356	3223	880.3	Ar Hiro	0238	1227	1403	735.0	Ar Noheji	1344
1437	3257	887.1	Ar Kure	0222	1214	1505	778.2	Ar Aomori	1255
1422	3232	887.1	Lv Kure	0207	1158	1600	0.0	Lv Aomori	1120
1509	3336	913.5	Ar Hiroshima	0131	1120				
1558	3423	954.9	Ar Iwakuni	0059	1029				
1717	3545	1,023.7	Ar Tokuyama	2318	0907	2030	113.0	Ar Hakodate	0620
1748	3616	1,050.2	Ar Mitajiri	2243	0832	2235	0.0	Lv Hakodate	0502
1812	3659	1,068.0	Ar Ōgōri	2222	0811	↓	27.0	Ar Ikusagawa	1
1944	3813	1,136.9	Ar Shimonoseki	2105	0650	2350	49.5	Ar Mori	0349
2005	3833	1,142.2	Ar Moji	2040	0627	0237	112.3	Ar Oshamambe	0227
2015	3843	1,149.4	Ar Kokura	2021	0606	0237	153.8	Ar Abuta	0125
2026	3851	1,149.4	Lv Kokura	2012	0554	0521	189.5	Ar Higashi-muroran	0037
2052	0921	1,173.0	Ar Ongagawa	1943	0525	0338	189.5	Lv Higashi-muroran	0027
2139	↓	1,208.6	Ar Kashii	1	0447	0433	207.0	Ar Noboribetsu	0009
2151	1010	1,216.7	Ar Hakata	1355	0435	0458	247.5	Ar Tomakomai	2322
2215	1031	1,216.7	Lv Hakata	1316	0418	0509	256.3	Ar Numanohata	2302
2255	1113	1,246.0	Ar Tosu	1133	0347	0555	277.7	Ar Chitose	2235
2341	1218	1,285.7	Ar Hizenyamaguchi	1632	0250	0650	315.8	Ar Higashi-sapporo	1
0045	1334	1,325.6	Ar Haiki	1520	0152	0700	321.1	Ar Sapporo	2130
0059	1352	1,334.3	Ar Sasebo	1455	0129				

EQUIPMENT

No. 1001-1002 DIXIE LIMITED	TŌKYŌ-SASEBO	No. 1005-1006 ALLIED LIMITED	TŌKYŌ-SASEBO
Compartment Sleeper	Ōsaka-Hakata	Compartment Sleepers	Tōkyō-Hakata
Standard Sleepers	Ōsaka-Hakata		Tōkyō-Ōsaka
Coach	Tōkyō-Sasebo	Standard Sleepers	Tōkyō-Sasebo
	Tōkyō-Ōsaka		Tōkyō-Ōsaka
	Hakata-Sasebo		Tōkyō-Nagoya
Dining Car	Tōkyō-Haiki	Coach	Ōgōri-Sasebo
Baggage Car	Tōkyō-Sasebo	Dining Car	Tōkyō-Sasebo
		Baggage Car	Tōkyō-Hakata
			Tōkyō-Sasebo

EQUIPMENT

No. 1201-1202 YANKEE LIMITED	YOKOHAMA-SAPPORO
Compartment Sleeper	Yokohama-Sapporo
Standard Sleepers	Yokohama-Sendai
	Yokohama-Furumaki
	Yokohama-Furumaki
Comb. Coach and Sleeper	Hakodate-Sapporo
Coach	Yokohama-Sapporo
Dining Car	Sendai-Aomori
Baggage Car	Sendai-Aomori
	Yokohama-Sapporo

Next, comes the English timetable issued in December 1931 by the Japan Tourist Bureau. At 7.5 by 5 inches, this Condensed Time Tables on Principal Lines was slightly smaller than previous timetables, but boasted a full 236 pages. The change to include many advertisements for gift shops and other businesses of interest to foreign visitors came about with the switch from an internal timetable to a timetable sold to the public.

It is filled with notes evoking images of the pre-war golden age of railways. Images of

trains gracing the covers include the *Fuji* and *Sakura* (Cherry Blossom) limited expresses running from Tokyo to Shimonoseki in September 1929, which were named by public contest, and the *Tsubame* (*Swallow*, making its debut in October 1930 to connect Tokyo and Kobe in a record time of 7 hours.

A major change in the 1931 timetables compared to 1918 was the disappearance of the Table-Number format. To find arrival and departure times for a station, first you searched for the line for that station on

the line map; then you looked for the page number for that line noted in red next to the line; and finally you opened the timetable to that page. If you knew the line in advance, you looked in the index for the page with that line. The chart for station names and Table-Number that once graced the beginning of timetables was transformed to a chart for station names and pages that station names are on, but it was pushed to the back of the timetable.

The method of referring to schedules based on the page showing lines was the same as

that for Japanese timetables at the time. The timing and reason why government railways' timetables eliminated the Table-Number format and changed to page-number reference chart are unclear. Perhaps reassigning the Table-Number was considered a cumbersome task when new lines were opening and private railways were being nationalized. One point was that finding schedules using the page-number reference method imposed little burden on users because the rail network was physically isolated from other countries and operated on a uniformly administered nationwide system. Each line had its own name, and geographical locations of places such as cities on lines were relatively easy to absorb by the general Japanese populace. For example, the Tokaido main line was well known as the line along the Pacific coast from Tokyo to Kobe, and the On main line was the line from Fukushima north to Yamagata and Akita. In addition, train operation was almost all line-based and very few trains ran on complex routes over multiple lines.

On the other hand, Continental European railways were characterized by complex networks crisscrossing the land; international trains carrying travellers from many countries ran across the entire continent. Consequently, the timetables could not be closed for a single country, and the concepts of direction and operation system were emphasized instead of a line in a single country. Stations themselves became the natural starting point for finding a schedule. The UK, an island nation like Japan, used the page-number reference method in Bradshaw's Timetable, which was issued for many years in that country.

The 1931 timetables included international steamship routes and schedules that were not in the 1918 timetables, and also the schedule or the Tokyo-Dalian air route that started in 1929. The international steamship route schedules included the Japanese companies Nippon Yusen Kaisha and Osaka Shosen Kaisha as well as the round-the-world service of Robert Dollar Co. This ambitious feature of the English version

was not included in Japanese versions.

The route via Siberia, connecting Asia and Europe, came into the spotlight again when WWI and the Russian Revolution settled down. International connections between Japan via Siberia to Europe restarted in August 1927. The 'connecting service between Japan and Europe' in this timetable noted the schedule and operation days. It was a long trip of about 14 days from Tokyo to Paris. The Asia-Europe route via Siberia was also noted in European timetables issued by Thomas Cook and Germany's Mitropa (a company running sleeper and dining cars). These timetables still evoke an image of the romantic age of rail travel before international air routes.

The Condensed Time Tables were issued irregularly afterwards. The March 1933 edition is interspaced with pictures of places of Japanese scenic beauty, and includes bus schedules—especially services to various hot springs—buses had finally become a viable mode of transport. The government railways set up the Board of Tourist Industry in April 1930 as an organization to promote overseas travel to Japan. In an age when the country was actively starting to attract foreign visitors, the content of timetables evolved to meet the needs of tourists interested in Japanese culture and traditions. According to statistics for 1936, the year before war broke out between Japan and China, 42,000 tourists visited Japan; 17,000 were Chinese and Manchurians.

Behind the emphasis on the uniqueness of Japan was a vigorous defence of the country, which was under intense international criticism for military moves in China since the early 1930s. Timetables give a glimpse at the propaganda campaign to present Japan with a clean image using tourism. Railways in pre-war Japan were not classified as strategic facilities, but areas near important ports and straits were designated strategic zones where photography and sketching were prohibited. These areas are clearly noted in the index map as early as 1931, signalling the approaching dark

times of war.

The cover of Condensed Time Tables for January 1939—the year that WWII broke out—has a fantastic image of a crane flying over Mt Fuji draped in red sunlight (Aka-Fuji) like an ukiyoe colour print by Hokusai. That was a delicate design evoking images of the Japanese folk tale of The Crane Lady, which was the basis for the theatrical performance of Yuzuru (Twilight Crane) made famous in opera. The cover, presenting no hint of the shadows of war, gives a feel for the final glow of Japan that attracted people through tourism. This is sobering when you consider the path of history thereafter, when Japan and this aesthetic beauty would be destroyed by war.

While trivial, the timetable text shows changes that tell of the sombre situation [our page 8, top]. The notes on train nicknames and station names show that the Fuji limited express between Tokyo and Shimonoseki is changed to Huzi. Likewise, Tokyo's Shinjuku entertainment district is written as Sirizyuku. This is because the spelling used when writing Japanese place names and other words in alphabetic letters was officially changed to one based on the Japanese language in 1937 to eliminate elements originating from English pronunciation. The background for that change was the increasing anti-foreign and nationalistic thinking of Japan at the time with its worsening foreign relations.

The Chinese continental railway noted in the back of the timetable was no longer under the authority of Chinese Government Railways, and was being operated by the North China Office of SMR because railways in areas occupied by Japan in the war with China were operated temporarily by SMR. A new company, North China Railway, which was effectively an extension of Japanese national policy, was established in 1939 to take over operation of these lines.

Japan eventually went to war with the USA and Great Britain on 7 December 1941, closing the country to peaceful inter-

EXPRESS TRAIN SCHEDULES CONDENSED (September, 1959)																																					
Tokyo, Osaka, Hiroshima, Moji, Hakata and Kagoshima EM Only, unless otherwise stated																																					
Table	J1	303	1	17	31	33	35	3	807	37	703	39	304	905	807	809	703	5	307	309	7	9	13	901	21	15	23	41	77	191	19	25	201	371			
TOKYO.....Lv	700	750	814	900	930	100C			125	125	1300	1324	1330	11412	1430	1455	1500	180	160	7608	163	182	190	2015	2030	2045	3700	3752	2130	2145	2200	2315	2230	2245	231		
Shinagawa	(T)	759	823	941		1111			125	1309	1309	1341	1423		1455	1500	180	160	7608	163	182	190	2015	2030	2045	2056	2111	2126	2141	2156		2242	2258	232			
YOKOHAMA	723	818	843	925	1003	1033	1106	113	7255	1320	1330	350	1403	1442	1456	1524	1625	1629	7636	1704	185	195	0482	1041	2118	2133	2148	2204	2219	2234	2248	2305	2321	234			
Ofuna		835	901		1022	1052	1120	115		1349			1422	1450										1072	123	1213	1372	1542	2209	2223	2239			2325	2342	00	
Odawara		908	93		1054	1124	1154	122		404	1421	1442	1454	1535	1545	1602	1607			1727	1758			2150	2205	2220	2237	2250	2306	2317			005	016	022	12	
Atonii		932	956		1119	1143	1218	124	7357	143	17445	7507	1577	1557	1616	1622	1633			1747	1821	195		2172	2232	2247	2303	2317	2332	234			005	016	033	047	12
Numazu		954	1192			XL			1450										1806	184			2243		2313	2330	2343	2358				058	115	15			
Shimizu.....		1032	1058						1508				1541	1617					1806	184			2243		2313	2330	2343	2358							15		

timetable for Tokaido mainline with many trains bearing nicknames (September 1959)

(Autho')

action with the outside world for about 5 years. War timetables were filled with slogans inciting the will to fight, but by 1944—the year before WWII ended—new timetables were rarely issued due to the lack of resources as Japan's position worsened.

### Allied Occupation

Japan's surrender on 15 August 1945 marked the start of the Allied occupation. Rail transport was put under General Headquarters (GHQ) supervision with the 3rd Transportation Military Railway Service responsible for administration. Rail Transportation Offices (RTOs) were established at major stations across Japan to provide guidance and issue tickets for Allied passengers. Many military personnel and journalists visited Japan during the occupation and rail was the main mode of transport due to lack of air routes and highway networks. Naturally, there was a need for railway timetables foreigners could read.

The Japan Travel Bureau successor to the pre-war Japan Tourist Bureau, issued a 200page Japanese-language timetable in September 1945. However, after that they were only able to issue a booklet of just 16 pages due to difficulty in obtaining paper. It struggled to maintain a monthly for Tokyo and nearby areas. Although issued for Japanese it did have station names in alphabetic letters, so it could be used by foreigners too.

Content covering just the Tokyo area was insufficient for use by GHQ who ordered the Japanese railway authorities to create a full-scale English timetable. While government railways were under the administration of GHQ, it was in fact operated by the Japanese Ministry of Transportation so the Ministry of Transportation Liaison Office created the Condensed Railway Time Tables marking the first full-scale, post-war English timetable.

Although the 34-page, A5 timetable was subtitled *To & From Tokyo* it actually covered the area east of Osaka to the Tohoku and Hokkaido regions. It applied to a larger area and more lines than in the JTB version for Japanese. Furthermore this timetable used 24-hour notation, adopted by Japanese railways from 1942, and returned to the Table-Number format

The suffering at the time is seen from the content. Opening the front cover, there is a note saying "*Owing to the shortage of coal supply, some of the trains may be cancelled for the time being*". Many train times had an X next to them meaning operations on those sections were suspended for this reason. The railway authorities revised the schedule on 20 November, increasing the number of scheduled passenger trains by 26% compared to the war's end. However, coal shortages forced

three reductions in passenger trains the following month, dropping the number to half the number running at the war's end.

Although times were hard, GHQ-related transport had top priority. Special trains for GHQ personnel appeared one after another in 1946. The main trains were the Allied Limited and Dixie Limited connecting Tokyo and Kyushu, and the Yankee Limited between Tokyo and Hokkaido. Trains for Japanese were also run with GHQ cars connected to them. Those cars were reserved for Allied personnel and hungry Japanese crammed into overflowing cars could not use them.

With the expansion of GHQ transport, English timetables became more substantial. The Sendai Railway Division and others even issued their own English timetables for their administrative areas. The nationwide English timetable issued in December 1946 was a massive volume measuring 9¼ by 7¼ inches and 216 pages; it even included all regional lines. The back end has a list of nicknames given to passenger cars requisitioned by GHQ. It also includes the schedule for a military ferry operating between Hakata in Kyushu and Busan on the Korean peninsula. This might seem strange because Korea was supposed to have been liberated from Japanese control at the end of the war. However, South Korea, was still under US military control and not yet independent.

After the December 1946 issue, English timetables once again became simplified. For example, the July 1951 timetable was 56 pages and only included major lines. It was a folding type once common on American railways. The end page tells how Japan was once again open to general foreign tourism from December 1947 with notations on how official travel for military passengers was handled, guidelines for non-official travel, and information for civilian passengers.

Famous hotels in various scenic locations such as Hakone and Nara had been requisitioned as R&R facilities for GHQ personnel, and timetables for travel to such places were listed in a booklet issued by Japan Logistical Command in the 1950s. (The government railways were restructured as a public corporation in June 1949, and Japanese National Railways (JNR) was established. English timetables were issued under the JNR name).

However, Japan was not the only place where timetables were issued for occupation forces, The US Military Railway Service created and distributed timetables for Europe after the German surrender and for the Philippines under US military administration. The US-Railway Guide [our page 12] was issued as a timetable for military trains by the OMG (Office of Military Government) and later the 8th Transportation

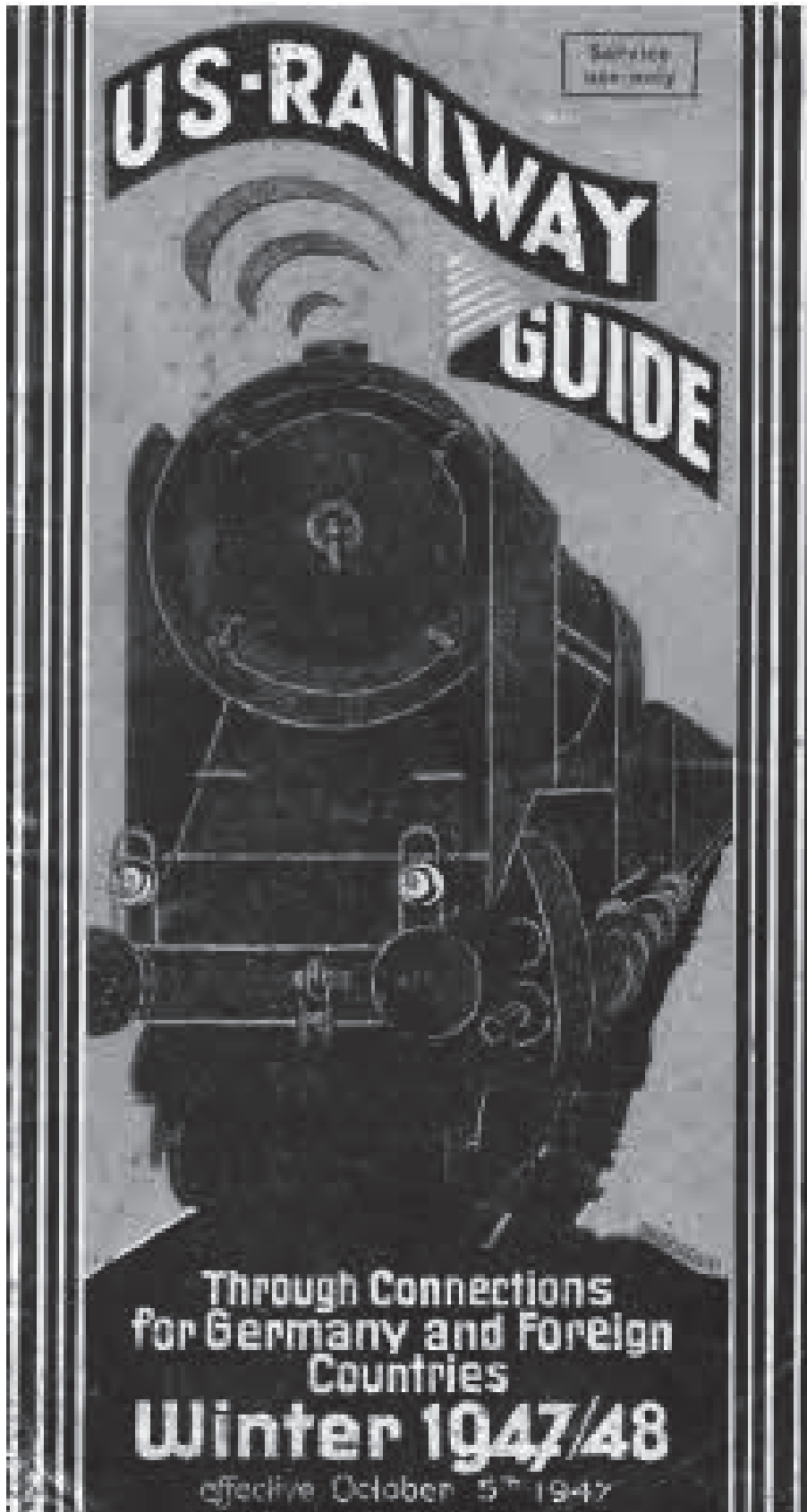
Traffic Regulation Group in Germany. It mainly covered the western part of Germany under the administration of the USA, UK, and France, but military trains to and from West Berlin are listed, giving evidence of the special tension in the German division and occupation.

Japan regained its independence in April 1952 when the San Francisco Peace Treaty came into force. The RTS were abolished and Japanese were permitted on Allied-forces trains on a limited basis. A leaflet distributed by JNR to Japanese about such trains noted that the trains could be called the first international trains in Japan and urged Japanese passengers to cooperate with on-train etiquette and keeping cars clean. For military passengers, it gave a disturbing caution to "*Please take care of your belongings when leaving your seats*".

### Rapid Economic Growth: Japan as a Major Political and Economic Power

The depressing occupation era eventually passed and English timetables from the late 1950s again became purely guides for tourists. In terms of the social situation, a 1956 Japanese Economic White Paper declared that the post-war period was over. From then on, Japan saw unparalleled rapid economic growth and was again working to attract tourists from abroad to stimulate the economy by securing foreign capital. The Japan Tourism Association was established to achieve this goal and efforts to promote inbound tourism to Japan and build an environment for accepting foreign tourists accelerated. English railway timetables were an unsung hero supporting this policy. Incidentally, JNR's English timetable was completely compiled by the JNR Foreign Department and printed and bound by a Tokyo company. By contrast, French National Railways (SNCF) issued its English timetables far away in North America, listing international trains and major domestic trains, thus demonstrating its commitment to attracting foreign tourists.

This period saw Japan's railway industry undergo remarkable growth. Express trains revived in 1949 increased in number year after year, with the *Kodama* limited express taking the famous supporting-actor role in the Kurosawa film debuting on the Tokyo-Osaka/Kobe route in November 1958. During this vibrant period, the back cover of the September 1959 English timetable proclaimed *Going the Fastest and Smoothest—This is the Catch Phrase for Travel by JNR's Superb Limited Express Trains*. This 1959 timetable introduced schedules for the limited express network covering Japan like a backbone from Aomori in the north via Honshu and Kyushu to Kagoshima in the south. At the time, there were 18 limited expresses running in Japan and the overnight Hayabusa (Falcon) took 22 hours 50 minutes to travel from



Tokyo to Kagoshima The same journey takes just 1 hour 50 minutes by air today. While few people make this trip by rail now, it can be travelled by shinkansen in 7 hours 30 minutes. So, in just half a century, travel time has been shortened dramatically. Even though it took a full day, such

trains were popularized in the 1950s and 60s as the most reasonably priced and fastest mode of transport for most people. This was JNR's heyday.

A surprise when opening a timetable of that era is the number of train nicknames.

Although nicknames were reserved for limited expresses in the pre-war era, they were given later to local express and faster trains. They included the Fuji and Tsu-bame from before the war, the quaintly named Asakaze (Morning Breeze) and Gekko (Moonlight), as well as Aso and Nikko which evoke images of travel. There were also long-distance slow trains without a nickname. For example, Train No. 111 connecting Tokyo with Moji in Kyushu departed Tokyo at 14:20 and arrived at Moji 1100 km away the following day at 20:12. At the time, there were several expresses as well as slow trains that took 24 hours or more from departure to destination. Around the world, trains running for more than a day are not rare, but it is unimaginable in Japan today with improvements in train speeds.

Signs of increasing speeds are evident to some extent in timetables. The codes E and D represented electric and diesel rail-car trains, respectively. Around this time, electric and diesel-powered railcars began to be introduced for long-distance trains in addition to commuter transport in urban areas. The back of the timetable states *JNR'S WAY IS THE NATIONS WAY is the motto of Japanese National Railways and is a driving force for its modernization program now underway*. Electrification is given as the first item of that program. A program to add an additional 900 smoke-free kilometers to the 2,28 km of electrified sections (11% of total) in the next few years is mentioned. The Kodama electric limited express connected Tokyo and Osaka in 6 hours 40 minutes, making same-day return business trips possible, and earning it the nickname *Businessmen's Limited Express* (if one was willing to ignore the fatigue of such a long trip). A speed test using those cars on 21 July 1959 reached a world record for narrow gauge of 163 km/h (101 mph) and is proudly mentioned.

By taking on such challenges, Japan's railway engineers eventually succeeded in achieving the ultimate form for long-distance high-speed transport when the Bullet Train opened between Tokyo and Osaka in October 1964 just before the Tokyo Olympics—the first in Asia.

The English timetable issued by JNR at the shinkansen opening was a two-tone cover in the same ivory and blue as the shinkansen livery and bore the confident catchphrase of *The Nations Progress Rides JNR*. The shinkansen service started as 26 direct return trips between Tokyo and Osaka along with a few section trains. A few of the Series 0 cars (the first shinkansen train sets) remained in service until November of last year [2009], and many Japanese went to bid their fond farewells at the last retirement ceremony.

Although JNR was facing its first single-year deficit that year, few realized the uncertainties lurking behind such a golden age of rail and that Japanese railways would be forced to make major reforms 20 years later. Shinkansen construction expenses rising far beyond expectations was one cause. However, Japan's era of high economic growth was showing no signs of slowing, and society as a whole was optimistic. The number of foreign visitors to Japan in 1964 was 350,000, a paltry number compared to the more than 8 million today, but still a large increase from the pre-war levels. 1964 was also the year that JTB started tours for foreign visitors to Japan.

JNR had issued timetables for foreign visitors up to this point, but JTB took over that job from autumn 1965, starting sales to tourists abroad. This was no coincidence if one takes into account the close relationship between JNR and JTB at the time. Up to the 1987 JNR privatization, JNR oversaw JTB's timetables for Japanese and purchased a large volume every month for its internal use. Operation of JNR Station Travel Centres was also outsourced to JTB.

English timetables issued by JTB were titled *Condensed Timetable Japan* and the size was reduced to A6 after 1967 for easier carrying.

The guidance on how to ride JNR trains was actually in English and French. The timetables covered nearly all local express and faster trains in Japan along with schedules for trains on private lines to tourist destinations such as Hakone and Ise and the ferry schedule for the Kansai Steamship Company connecting Osaka with the hot springs area of Beppu. In that way, it had more substantial tourism content than the timetable issued by JNR. Guidance to famous sites across the country and addition of advertising was reminiscent of pre-war timetables, but the addition of departure times of international airlines in the back was a major difference. Airline times had been included in the Japanese version up to the early 1960s but were omitted due to lack of space with increased train runs. 1964 saw the return of overseas travel by ordinary Japanese but there were still some restrictions when travelling abroad. The numbers of Japanese travellers abroad did not increase immediately, so the absence of international air routes was no major hindrance. International air routes in timetables for Japanese did not reappear for another 20 years-1987.

JTB's timetables for foreign visitors disappeared at some point, but a mini-timetable was published later in October 1984. It was targeted mainly at business travellers, and

was limited to shinkansen, limited expresses, and expresses. It had line and station names in alphabetic notation next to the Japanese to assist foreign travellers.

Japan's GNP became the world's second largest in 1968, and the Worlds Fair was held in Osaka in 1970. In light of the robust economy, new English timetables were issued again in the 1970s. The first issue of ABC Timetable of Japan bearing the same name as the famous UK publisher appeared in March 1973. However, the content was not in the UK style with station names listed in alphabetic order, and it used the traditional Western Table-Number format. In fact, the only connection to ABC of the UK was that it simply borrowed the ABC name. The timetable was ambitiously edited, as demonstrated by the relatively large number of bus lines to tourist destinations, but whether it was continuously published monthly is unfortunately not clear.

Looking at timetables of the era, we can see a major change from the 1950s to the mid-1960s. The variety of nicknames given to trains dropped dramatically. Trains running on the same section were increasingly named in a Train Name + Number format. The 350 or so train nicknames in 1967 dropped to about 260 with the October 1968 schedule change. This may have



been in preparation for computerized reservations. JNR started the world's first MARS online seat reservation system in 1960 and set up Green Window reserved seat sales offices in major stations in an attempt to further increase seating capacity using the opportunities presented by the opening of the shinkansen. Computers of the time were quite limited in functionality compared to now, and attempts were made to reduce the volume of data that needed to be stored. Making guidance for passengers concise of course also drove this change.

This deviates a bit from the topic of foreign language timetables issued in Japan, but I would like to introduce a topic of interest from 1977 Japanese railway schedules became a famous media overseas and were widely distributed. The timetable published by venerable British company Thomas Cook had originally covered Europe, the Middle East, and North Africa under the name Continental Timetable, and it started listing railway schedules for North America in the 1970s. It went even further in the January 1977 issue by changing the title to International Timetable and carrying railway schedules for the entire world, including Japan's shinkansen and major conventional lines. It covered railways of developing countries too, so Japan was not particularly singled out for special coverage. But with that publication, one could find an outline

of Japanese railways overseas. There were anecdotes, however, of various mistakes because AR's content check was insufficient. The section of Thomas Cook's International Timetable excluding Europe was officially spun off in 1981, and is known today as the Overseas Timetable.

While it is unclear whether Thomas Cook's coverage of schedules prompted JNR, it did start issuing the Japan Rail Pass in May 1981. Until that time, special fares for foreign visitors were available only for overseas tourist parties of 15 or more people with a certificate from the Japanese embassy and packages that included transportation fares and lodging on specific sightseeing routes. Japanese railways could not be said to have been very considerate to individual foreign travellers who wanted to travel freely at a reasonable price, but the appearance of the Japan Rail Pass like the Eurail Pass at last met that need.

### Epilogue

JNR underwent a major transformation in April 1987 when it was privatized and split into several regional companies. This upheaval coincided with the end of the Cold War, and the flow of people and goods was stimulated further by the appearance of a global society. Japan had been in a period of low growth but was blessed again with robust growth in the late 1980s and early 1990s. The country's place as a centre of global economy and culture along with

Europe and the USA was made even more distinct. Today, the Japanese government is promoting its *Visit Japan Campaign* with the lofty goal of attracting 10 million foreign visitors in 2010.

Both the JR group as a whole and each individual JR company in the group have been working to develop an environment to better accommodate foreign tourists. With the growth of the Internet and other information technologies, anyone can now find schedules and how to use Japanese railways from the comfort of their home. However, the JR companies still distribute the Railway Timetable in English with notes on shinkansen, limited express, and overnight train schedules to major travel agencies. It is issued when major changes are made to train schedules. JR Central also has an English timetable for the Tokaido and Sanyo shinkansen, and JR East has leaflets noting schedules for the Narita Express (airport access) services.

I am sure that the almost century-long history of foreign language railway timetables in Japan, sometimes at the mercy of difficult international circumstances, will continue and will still provide a glimpse of the times when they were issued.

**Yoshiki Soga:** Mr Soja graduated in 1995 in transport economics from Waseda University's School of Commerce. He currently works for Railway Information Systems Co., Ltd. in the JR group of companies where he is involved with operation of JR's highway bus seat reservation system. His interest in railways and transport in general goes back to his schoolboy years, and he has been collecting domestic and foreign historical timetables as a hobby for more than 20 years. He is the author of several books, including *Reading World History from Transportation Timetables* (Shakai Hyoron Sha, 2008). A short analysis of this book will appear in a forthcoming edition of *The Times*.

This article is the third of three articles reproduced *verbatim* from a special timetable-related issue of *Japan Railway and Technical Review (JTR)*, #53 of September 2009. The other articles related to Thomas Cook timetables and to the 1000th issue of the JTB timetable. Readers will probably be aware that the situation relating to, for instance, the Thomas Cook timetables, has changed since Mr Soga wrote the article reproduced here.



November 2014 marked the 50th anniversary of the shinkansen. In a media release, it was stated that *“Its average deviation of time from schedule is one fifth of a second. Trains now run on the most important route — Tokyo to Osaka — every four minutes.”*

# Who put the time into timetables?

## Reflections from all over

**M**r Stickybeak (a penguin, right) lives with his wife under the wharf at Manly. Last summer they decided not to emigrate when their children left home. But they were waiting for the children when they came back home, precisely on schedule on July 21st. How did the kids do this? They might themselves wonder. I recall a cartoon in the *Australasian Post*, depicting two penguins standing on the beach at Cowes on Phillip Island, watching a caravan arrive in the caravan park. Says one to the other, "It's unbelievable- here they are again – same family, same camping spot, same day, same time! It must be supernatural!"

In Spring 2013, the annual shearwater (mutton-bird) migration from Siberia to Australia went seriously wrong when the birds met a head-wind. They ran out of time and fell to the ground dead at the very moment they should have landed at their traditional nest sites.

What is going on here- do penguins and mutton-birds have a clock, or a timetable? Yes and yes and so do we- this story is about how we all got into this fix.

My mother once told me that one of her cousins never referred to a thing called a Time Table, but always to a "Skeddoool", which was his pronunciation of "Schedule" This always sounded like a good idea to me. During the 2012 survey and subsequent discussions within AATTC about its name, the vast majority of contributors used the single word "timetable", rather than the two words "time" and "table". A discussion arose after our name change as to whether the new abbreviation for our Association ought to be ATA or ATTA

When, how and why did society manage to squash an adjective and a noun together? Timetable is a compound word, rather than a portmanteau word, but it still adheres to Humpty Dumpty's explanation that, 'You see it's like a portmanteau—there are two meanings packed up into one word.'

**Ian Jack wrote (at about the time the British National Rail Timetable disappeared):** I was travelling to Manchester. This was fitting. Many new ideas once came out of Manchester and among them was the timetable. There, in 1841, George Bradshaw, a Quaker printer and engraver, published the first volume of Bradshaw's Monthly Railway Guide. Advertising the departure and arrival of trains, and before then, mail coaches, wasn't new: coach companies had "time bills", and the Liverpool and Manchester Railway announced its "scheme of departures" in the local press. Bradshaw's achievement was to collate the timings of trains run by different companies - by 1841 there were almost a thousand route miles of railway - and express them cogently and clearly in a grid system, destinations vertically and times horizontally, so they looked scientific, like logarithms or the tide tables (the probable origin of the new phrase, timetable) that had been used by British harbour-masters since the 16th century.

Not that either timetable or "time table" are words familiar to all. While standing outside an NAOTC (National Association of Timetable Collectors) convention one day, a passer-by questioned myself and NAOTC's John Wilkins as follows "What's a "timetable"? It took an Australian to explain it to him- "It's just a schedule". "Doh". He understood it then. A collector of schedules was something he could grapple with.

As Ian Jack points out (box), we have Tide Tables, but never tidetables- why? Google will offer you both "Time Table" and "Timetable" as the results of a search on either of the variations singly. If you search for tidetable (without the quotes), it will throw up results for "tide table" without even bothering to check back with you. But, if you ask it for "tidetable" it will question you- 'Did you mean: "tide table"? Google will, however, provide you with some true "hits" for the word- including a domain name which uses it.

Time Table was a word, therefore whose etymology pre-dated railways but almost certainly was generated by them.

In the tiny, circumscribed and introspective world of ATA, the word timetable refers exclusively to a transport timetable. This is also the most usual meaning attributed to it by dictionaries, some samples of which follow

n. A tabular statement of the time at which, or within which, several things are to take place, as the recitations in a school, the departure and arrival of railroad trains or other public conveyances, the rise and fall of the tides, etc.;

n. A plane surface divided in one direction with lines representing hours and minutes, and in the other with lines representing miles, and having diagonals (usually movable strings) representing the speed and position of various trains.

n. A table showing the notation, length,



or duration of the several notes.

n. A tabular statement or scheme, showing the time when certain things are to take place or be attended: as, a school time-table, showing the hours for study in each class, etc.

n. Specifically— A printed table showing the times at which trains on a line of railway arrive at and depart from the various stations.

n. A collection of such tables for the railway passenger traffic of an entire country, or of a district of country of greater or less extent. Also called railway- or railroad-guide.

n. In musical notation, a table of notes arranged so as to show their relative duration or time-value.

n. a schedule of times of arrivals and departures

n. a schedule listing events and the times at which they will take place.

But this is something peculiar to the English language- as the NAOTC example cited earlier will testify. Other languages—even American—have their own specialised lingo for transport timetables. If one uses *Google Translate* to obtain the foreign equivalents to *timetable*, it nearly always



**Look Ma!.. One Hand!**

When this clock was installed at the St James The Great church in Staple in Kent, the notion of timing life to the minute had not really surfaced.

returns words that are not right. An example is the following for Spanish: *calendario*, whereas we know from our own collections that the Spanish word for a transport timetable is *horario*. It is interesting that our founder Jack McLean proposed that we be called *horariologists* on this basis- but he didn't convince anyone of this. A back translation of this word produces the English equivalent of "schedule". These two-way translation mismatches hold true for most languages.

It is probably true to say that the contraction "timetable" is an Americanism. This might be one reason why some non-Americans bristle at it. But bristling at Americanisms is a fraught business because many Americanisms are really English Colonialisms, which failed to evolve once they were exported from Britain.

NSW Railcorp issued Time Tables until its dying day. Its successor Transport for NSW uses the compound word- at least for the Train Crew versions of its public booklets. Some railways – the Victorian Railways for instance—did not meet the challenge head-on, but fudged by choosing the hyphenated word "Time-tables". Certainly they were more correct in using the plural for their book. It was a collection of many timetables.

**Time**

St Augustine ruminated on the nature of time, asking, "What then is time? If no one asks me, I know: if I wish to explain it to one that asketh, I know not." He settled on time being defined more by what it is not than by what it is and concludes that it is the result of having a "soul".



It was only in the machine age that people became aware of speed as a quality that could be measured, computed, and adjusted. For the ancients, speed was indefinable. Before it meant velocity, Old English *spede* or *sped* meant something more like success and prosperity; "God speed" didn't mean "May God hustle you along." Aristotle struggled enough with the abstraction of motion; to pin down a concept of velocity required a precision in measurement—and a belief in the precision of measurement—unattainable in the pre-Galilean, pre-Newtonian world. Languages had no words for the units of speed until the era of sail made necessary the quirky coinage knot (sailors measured their speed by heaving overboard a log tied to a rope and counting the evenly spaced knots as it played out). Even now, when the modern lexicon of units of measure includes joules and parsecs along with feet and pounds, the relative newness of speed shows up in a dearth of words: we almost always have to express speed in terms of a division of quantities: miles per hour, feet per second.

Before the machine age, few people had direct experience with uniform motion as expressed in Newton's equations. Steady speed first came with trains. The railroad bewildered passengers by causing familiar features of the landscape to float across their field of view at high speed. It did not take much speed to create amazing, strange sensations. "We flew on the wings of the wind at the varied speed of fifteen to twenty-five miles an hour", a first-time passenger wrote in 1830, "annihilating time and space". A mental leap was needed from speed as an attribute of planets and horses to speed as a variable, fine-tunable property. Machines let us make that leap. They gave us the everyday power to change a thing's speed by turning a dial or depressing a pedal.

The notion of time took hold so firmly, that few paused to consider the implications. J.G.Ballard, however, in his science fiction story, "*Chronopolis*" [extracts, next page) posits a future where clocks have been abolished because—as one character tells another—"If you can time how fast a person works at a job, then you can make him do it faster". The hero of the story—a closet clock fanatic—visits the abandoned "time city" of Chronopolis and starts the old clocks running again. He is caught and punished with a long gaol sentence. He is overjoyed to discover that his cell is provided with a clock. The story finishes: "*He was still chuckling over the absurdity of it all two weeks later when, for the first time, he noticed the clock's insanely irritating tick...*"

**Speed**

James Gleick in his 1999 book "*Faster—the acceleration of just about everything*" made the point that the speeding up of modern life was really triggered by railways (see box above). Indeed the concept of speed itself was crystallised by rail. At first, rail's big selling point was that one reached one's destination **sooner** (i.e. earlier)—this was easy to see in the timetables. It was not long before the mantra changed to reaching one's destination **faster**. This was not so easy to visualise in a timetable—apart from graphical schedules which, although they were invented at the same time as the **timetable**, caught on only with management. The term "Express Train" was introduced in 1871 by the Midland Railway in England. It was not long before analysts and popular writers took a fancy

to this and, within 10 years, any number of books and journals began to compare and contrast the *speed* of "**Express Trains**".

Gleich's book was written well before the invention of the smart phone. Although he was prescient about the general speeding up of life, I suspect even he must have been surprised by how the smart phone heightened our ability to achieve instant gratification and to rev up life's pace by another order of magnitude—timetables at your finger-tip.

**Table**

A timetable is a skedool in "tabular form".

The term "table" (that is, a piece of furniture) is derived from a merger of French table and Old English *tabele*, ultimately from the Latin word *tabula*, "a board, plank, flat top piece". In Late Latin, *tabula* took over the meaning previously reserved to *mensa* (preserved in Spanish and Portuguese *mesa* "table"). In Old English, the word was *bord*, replaced by "table" for this meaning. In medieval counting houses, the tables were covered with a piece of checkered cloth, to count money. Exchequer is an archaic term for the English institution which accounted for money owed to the monarch. Thus the checkerboard tables of stacks of coins are a concrete realization of this information.—there are rows and there are columns of stacks because the money needed to the allocated in two ways— for instance by person and by time period. People—especially money-counters—



You and I are taking a trip.' 'Where?' Conrad asked. 'Back into the past,' Stacey said lightly. 'To Chronopolis, the Time City.'....

...'Thirty million people once lived in this city,' Stacey remarked. 'Now the population is little more than two, so that the city today is effectively an enormous ring, five miles in width, encircling a vast dead centre forty or fifty miles in diameter.'

...on all sides there were the clocks. Conrad noticed them immediately, at every street corner, over every archway, three-quarters of the way up the sides of buildings, covering every conceivable angle of approach. Most of still retained their hands. All registered the same time: 12.01. 'They were driven by a master clock,' Stacey told him. 'When that stopped they all seized at the same moment. One minute after midnight, thirty-seven years ago. 'Conrad looked at his wristwatch, noted that it was just 2.45 p.m.

... Never had he visualized so many clocks, in places so dense that they obscured each other. Their faces were multi-coloured: red, blue, yellow, green. Most of them carried four or five hands. Although the master hands had stopped at a minute past twelve, the subsidiary hands had halted at varying positions, apparently dictated by their colour. 'What were the extra hands for?' he asked Stacey. 'And the different colours?'

'Time zones. Depending on your professional category and the consumer shifts allowed. Think of the problems, though. Transporting fifteen million office workers to and from the centre every day, routing in an endless stream of cars, buses, trains, helicopters, linking every office, almost every desk, with a videophone, every apartment with television, radio, power, water, feeding and entertaining this enormous number of people, guarding them with ancillary services, police, fire squads, medical units - it all hinged on one factor.'

Stacey threw a fist out at the great tower clock. 'Time! Only by synchronizing every activity, every footstep forward or backward, every meal, bus-halt and telephone call, could the organism support itself. Like the cells in your body, which proliferate into mortal cancers if allowed to grow in freedom, every individual here had to subserve the overriding needs of the city or fatal bottlenecks threw it into total chaos. You and I can turn on the tap any hour of the day or night, because we have our own private water cisterns, but what would happen here if everybody washed the breakfast dishes within the same ten minutes?'

But how did they enforce all this?'

'By a system of coloured passes, coloured money, an elaborate set of schedules published every day like the TV or radio programmes. And, of course, by all the thousands of clocks you can see around you here. The subsidiary hands marked out the number of minutes remaining in any activity period for people in the clock's colour category.'

Stacey pointed up at the tower. 'This was the Big Clock, the master from which all others were regulated. Central Time Control, a sort of Ministry of Time, gradually took over the old parliamentary buildings as their legislative functions diminished. The programmers were, effectively, the city's absolute rulers.'



are born categorizers ("splitters") and would love to be able to slice and dice information in more than two ways. We live, however, in essentially a two-dimensional world when it comes to receiving written information, so tables cannot have more than 2 dimensions without becoming confusing.

Arranging "data" by rows and columns was, however, a much older practice than this. Probably the earliest appearance of tabular material was in an Ephemeris (from [Greek](#) ἐφημερίς [*ephēmeris*, "diary, calendar"]]) and the earliest of these seems to date from the 2nd millennium BC — Panchanga tables based on Jyotisha in the Vedic period of Indian astronomy.

Does it matter? No, it doesn't amount to a hill of beans in the outside world. It prob-

ably matters only a little more to pedants like ourselves but even most of us will shrug it off and I suspect a great number of us never even noticed that we weren't AATC or ATTA.

What seems certain however, is that human life will continue to be subject to a myriad of ever-accelerating timetables for the foreseeable future.

The abandonment of Chronopolis is a long way off.



# A new standard in Country Train Services

## THE COMMISSIONER

**T**hey were the best of times, they were the worst of times.

In the post-war austerity, people craved for something swish. An air-conditioned Express Train was just the ticket.

In 1949, American movies and records were all the rage. It was *de rigueur* for women to look like one of the Andrews Sisters and for men to look like Cary Grant. So here (our cover) we have the pair about to

make their escape to Ettamogah for a getaway naughty weekend.

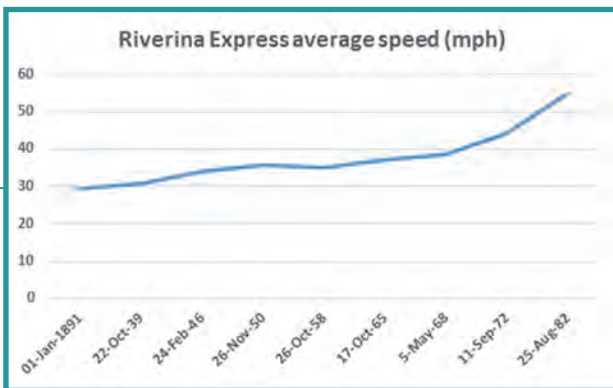
I hate to say this, but many of the other people pictured in this 1949 NSWGR brochure don't scrub up as well. They have a decidedly shifty and wooden look—perhaps they were borrowed from the mannequin store at David Jones?

From the earliest days there was always a day train to Albury—in 1891, an “Express Mixed”, taking nearly 14 hours. The Riverina Express was introduced before WWII,

leaving before lunch and arriving after dark. After WWII, the departure time was put back to make the train a daylight runner. In its last incarnation, run by an XPT, the running time had been halved to 7h20m. Times are from the WTTs of the day.

The 1949 “re-vamp”, with its 40 minute speed-up was an instant hit here, and also overseas, if the English cigarette card on our rear cover is any indication.

	01-Jan-1891	22-Oct-39	24-Feb-46	26-Nov-50	26-Oct-58	17-Oct-65	5-May-68	11-Sep-72 Diesel	25-Aug-82 XPT
<b>Stations</b>	<b>Steam</b>	<b>Steam</b>	<b>Steam</b>	<b>Steam</b>	<b>Steam</b>	<b>Diesel</b>	<b>Diesel</b>	<b>Train</b>	
Sydney	4:10	11:25	8:23	8:15	8:15	8:15	8:05	8:05	12:10
Goulburn	10:40	15:12	12:05	11:45	11:51	11:39	11:39	11:02	14:43
Cootamundra	14:10	19:58	16:10	15:42	15:37	15:14	14:58	14:07	17:14
Wagga Wagga	16:00	21:54	18:11	17:22	17:45	16:47	16:35	15:29	18:17
Albury	17:50		20:16	19:29	19:45	19:02	18:28	17:10	19:30
Elapsed	13:40	10:29	11:53	11:14	11:30	10:47	10:23	9:05	7:20
speed (mph)	29	31	34	36	35	37	39	44	55



*In designing this train the Railway Administration has endeavoured to give travellers by the New South Wales Government Railways the benefit of the latest railway developments throughout the World. Mr. John Elliot, the British Railway Expert who was here this year and travelled on the Newcastle Express — a similar train — expressed the view that there was nothing better in day trains anywhere.*

*With the Compliments  
of the Commissioner*

## The Riverina Express

This is the first of eight trains specially designed to provide modern daylight services between Sydney and distant country districts.

Built completely of steel it is as safe as human hands can make it.

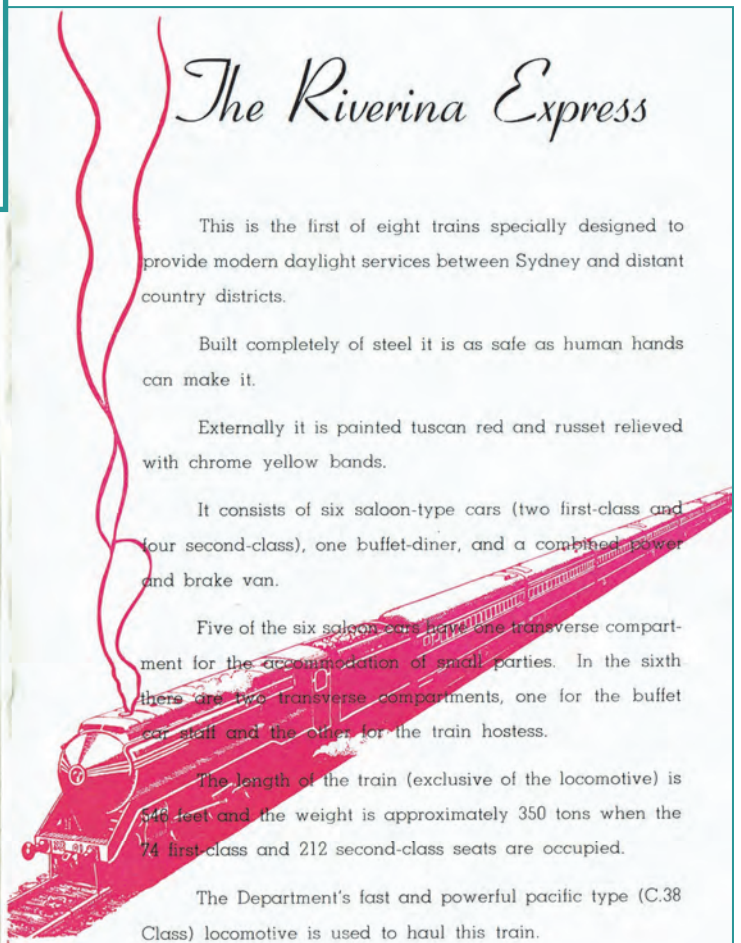
Externally it is painted tuscan red and russet relieved with chrome yellow bands.

It consists of six saloon-type cars (two first-class and four second-class), one buffet-diner, and a combined power and brake van.

Five of the six saloon cars have one transverse compartment for the accommodation of small parties. In the sixth there are two transverse compartments, one for the buffet car staff and the other for the train hostess.

The length of the train (exclusive of the locomotive) is 546 feet and the weight is approximately 350 tons when the 74 first-class and 212 second-class seats are occupied.

The Department's fast and powerful pacific type (C.38 Class) locomotive is used to haul this train.



## The First Class Car



This car differs from the second-class car in that it has been designed to give the first-class traveller something extra for the higher fare paid. It is panelled in maple and is covered to sill level with green mottled "Fabrex". The seats are the rotating and reclining type that may be adjusted in four different positions by means of a lever fitted under the armrest.



## The Buffet Diner

Food—good food—is a very important factor in providing comfort on a long journey. The buffet-diner shown below is designed to give the traveller both food and comfort in pleasant surroundings.



Seating 27, service of meals and light refreshments is continuous throughout the day, but in order to give the maximum number of passengers an opportunity of a full mid-day meal a minimum charge applies between 12.00 noon and 2.00 p.m.

In order to avoid queues in the aisles regular announcements will be made over the public address system on the seating accommodation available in the buffet-diner car. For the comfort of other passengers it is desirable to remain in your seat until there is room for you.

Smoking is prohibited in this car.

## The Second Class Car



Illustrated above is the interior of one of the four second-class cars. It is panelled with silky oak and covered to sill level with brown mottled "Fabrex". The comfortable seats, specially sprung and upholstered, are the turnover type with a fixed angle of inclination.

Individual reading lamps are provided in the second-class as well as the first-class cars.

## Special Facilities



★ The hostess is on the train to minister to your needs: she will mind your baby while you obtain a meal or she will get you light refreshments if baby cannot be left; if you are getting on in years and do not feel capable of going to the buffet-diner she will bring light refreshments to you.

★ Luggage racks and cubicles are provided in each car. Heavy and bulky luggage may be checked through the luggage room in the ordinary way.

★ Toilet facilities include pedestal wash-basins supplied with hot and cold water.

★ An iced-water container with dixie drinking cups is installed in the vestibule at each end of the cars.

★ Paper bags are supplied to hold fruit peelings and other litter, and a refuse receptacle is located at the end of the cars for the disposal of such rubbish.

★ Ash trays are conveniently installed in the smoking compartments.



## Additional Features

Air conditioning provides a comfortable even temperature and a dust-free atmosphere.

Fluorescent lighting ensures an absence of eyestrain when reading, knitting, or doing any of those other things that help to pass the time pleasantly on a long journey. The fluorescent lighting tubes are encased in a perspex trough installed along the centre of the ceiling.



Individual reading lamps are built into the underside of the luggage racks.

The power for the air conditioning, lighting, heating, and cooling units is generated in the power van by two 75 kW alternators driven by 165 h.p. diesel engines. This type of power generation ensures full power for all purposes when the train is standing.



## The Public Address System



The public address system, a new development in New South Wales rail travel, has proved its popularity and usefulness on the Newcastle Express.

On the Riverina Express it will be used to give passengers information regarding the time and duration of the next stop and, from time to time (particularly between 12 noon and 2 p.m.), the seating position in the buffet-diner.



## Seats

- Reservations of seats is compulsory.
- The reservation fee is 1/6.
- Reservations may be made up to fourteen days in advance of the day of travel.
- Smoking is strictly prohibited in the non-smoking cars. When reserving seats passengers should specify whether smoking or non-smoking accommodation is required.
- The seat numbering system provides that the first seat in Car 1 is 101, the first seat in Car 2 is 201, and so on. Thus there is a different number for every seat in the train. This arrangement has been adopted to avoid duplicate bookings which occur from time to time on trains that have the same seat numbers in two or more cars.

If, through some unforeseen circumstance, travel by the train on which a seat has been booked cannot be made, the passenger should cancel the reservation even if this has to be done on the day of travel. Reservations can be cancelled at any booking office, but preferably where the ticket was taken out or at either of the main booking offices at Central or Challis House, when refund will be made of the booking fee.

If bookings are not cancelled in time to be re-let, the seats are left vacant on the departure of the train from the commencing point, and this leads to complaints from other applicants who were unable to obtain reservations.



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