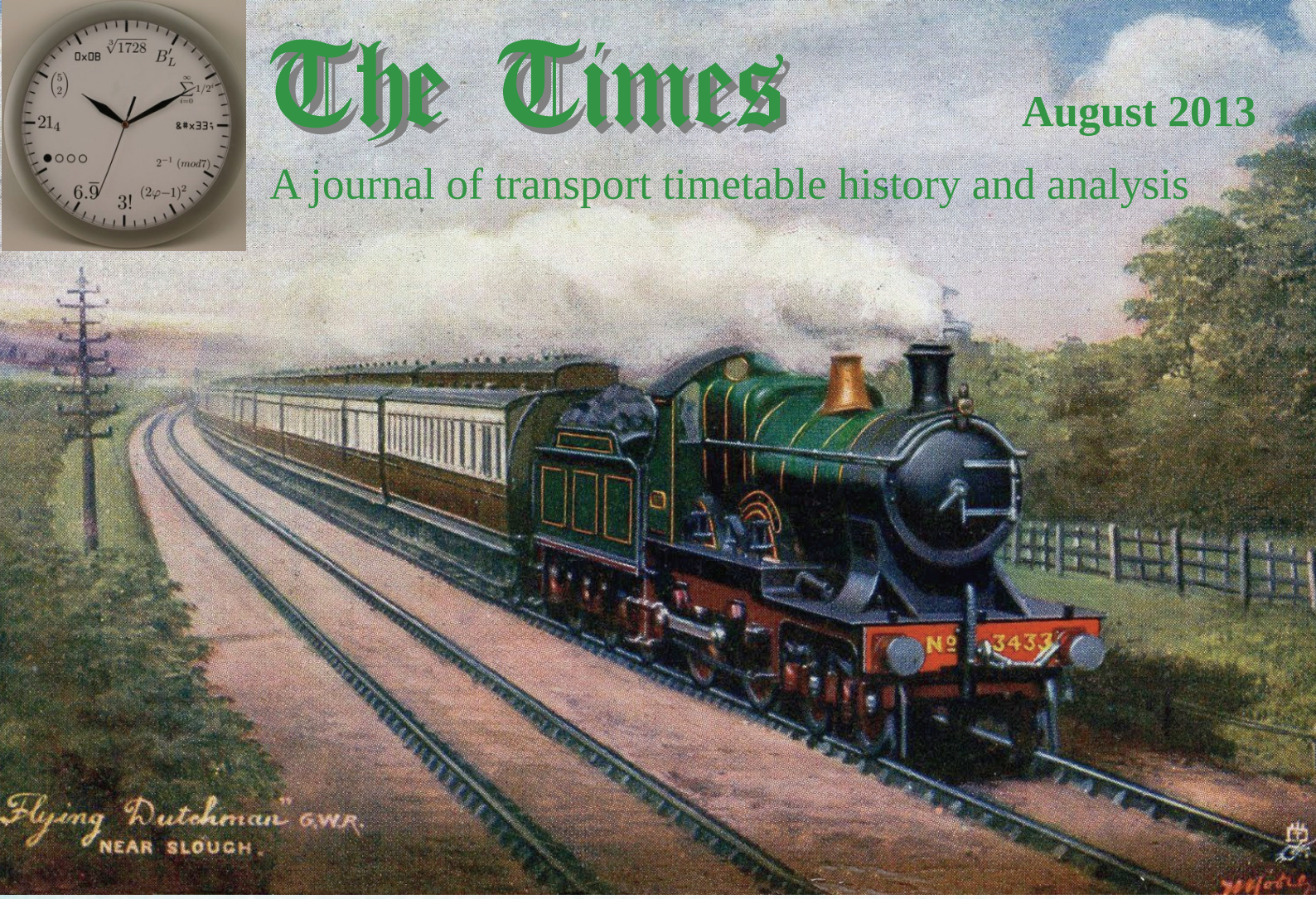
The Times

August 2013

A journal of transport timetable history and analysis



Inside: The GWR's timetable competitions
Move Zones
Timetable Menagerie

RRP $4.95
Incl. GST

The Times

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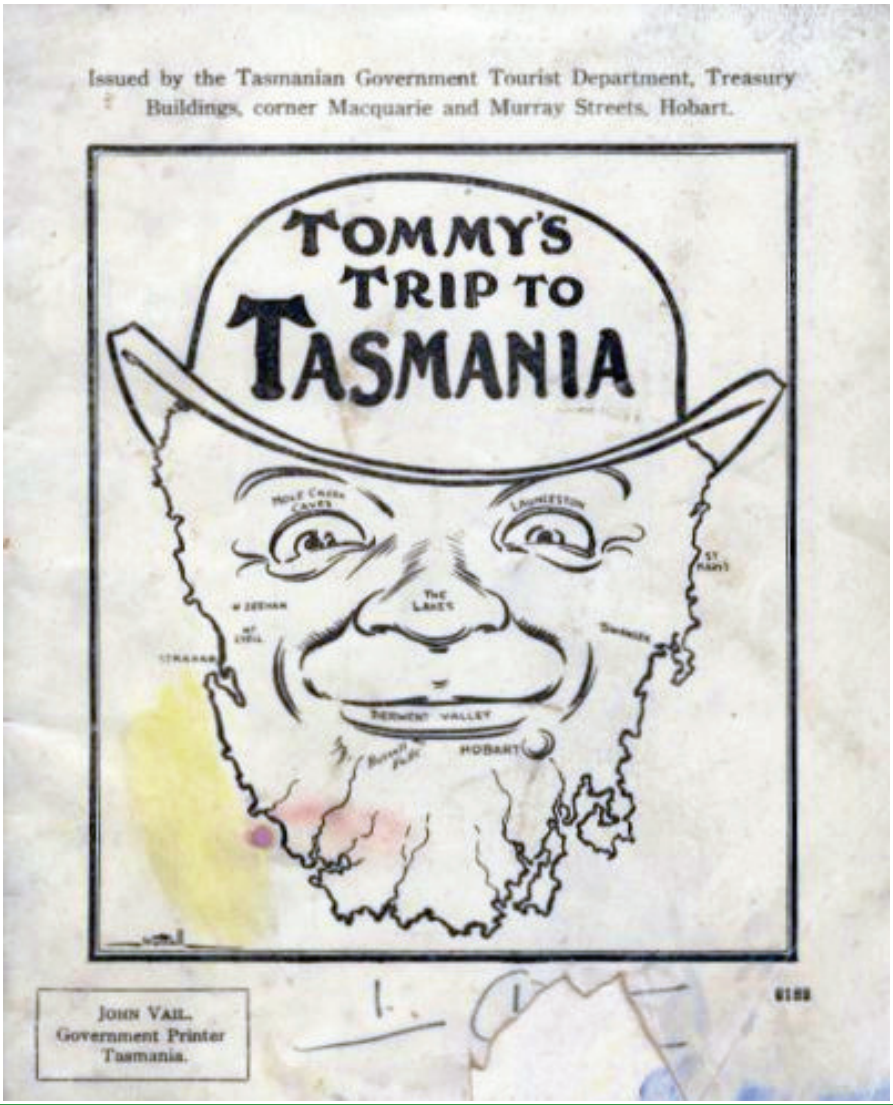
-Timetable image of the month-



The Time-Keeping of Passenger Trains.

THE All-Line Passenger Train Competition is now in full swing, and it is thought that the Great Western Railway staff, whether they are directly concerned in the contest or not, may be interested to learn how the working of the trains is measured for the purpose of the "Divisional Tables" which have become a familiar feature of the *Magazine* since the commencement of the kindred competition in respect of goods trains. As stated in the May issue, the Superintendent of the Line supplies figures from his monthly statistics of passenger train time-keeping, and these are the basis of the scores.

Statistics which are correctly compiled and properly used are of great value, and we have an excellent example of this in their application to train-working. It is obviously impossible for a divisional superintendent to see personally, day by day, the whole of the work for which he is responsible. He may, for instance, see one or two well-known trains running to time practically every day, but in another part of his division there may be trains which are just as regularly late. The only means he has of judging whether or not the whole of the working is satisfactory is to have before him at regular intervals, the results of the working in the form of figures. He is thus able to "hold the reins"—to compare the achievements of his staff period by period, and to investigate anything exceptional that is reflected in the figures. From a summary of the results for every division, the Superintendent of the Line can similarly review the working of the whole railway and compare the various divisions with one another.

Statistics in themselves do not remedy inefficient or uneconomical operation. The most expensive barometer does not change the weather for us, but it does tell us when it is advisable to take an umbrella. Similarly, the value of statistics is in their use as a guide to action.

If statistics show what has been achieved, it is desirable that they should be seen by everyone who has "done his bit" towards obtaining the result. A good result is an incentive to a better one.

For reasons of economy and convenience of accommodation, the actual work of preparing the passenger train statistics is carried out by a section of the Chief Mechanical Engineer's staff at Swindon, where facilities exist for producing statistics by up-to-date office machinery. Thus, in compiling the figures, the "Burroughs"

800,000—Est. BM 304—1-29—(8). S. (367–1)

G.W.R. PASSENGER TRAIN JOURNAL.

(For full instructions in making out this Journal, see Circular No. 4416, dated April, 1929.)

DOWN

.....{Description of Train}.....m. from.....to.....

Shew here the ordinary train of which the above is a train run in relief thereof} .....m. from.....to.....

.....day,.....19.....

Stations and Dividing Points Between each Division.	Actual Time of Arrival H.	Actual Time of Arrival M.	Actual Time of Departure H.	Actual Time of Departure M.	Late Away from Station Mins.	Minutes Lost: At Stations: Attaching or Detaching	Minutes Lost: At Stations: Other Station Delays	Minutes Lost: At Stations: Waiting Connections	Minutes Lost: By Engine	Minutes Lost: By Signal	Minutes Lost: By Eng. Checks	Minutes Lost: By Exceptional Causes	Minutes Gained: At Station	Minutes Gained: By Engine	Vehicles: Attached: Loaded	Vehicles: Attached: Empty	Vehicles: Detached: Loaded	Vehicles: Detached: Empty	Tare weight in Tons at starting point and where load is altered.	Remarks as to cause of detentions at Stations, Signals, etc., also information showing the various places where Train is crossed from M.L. to R.L. or *vice versa*.
TOTALS . ..																				

Minutes Late Leaving Division or at Destination | Total of all Minutes in Division: Lost | Total of all Minutes in Division: Gained | Show "Yes" or "No" if Train is formed in accordance with programme, etc.

General Remarks, *e.g.* occurrences to Train, causes of delay, whether coaches fully and correctly labelled, properly heated and suggestions for improvement of working, etc

Number of Passengers in Train on Leaving							
First	Third	First	Third	First	Third	First	Third

State of weather during journey, if wet, frost, fog or snow, and between what points.

adding machine is used, which enables the totals to be produced much more rapidly than by hand. Complete information relating to the working of freight trains is also worked up mechanically by the use of machines known as "comptometers," which can perform any of the ordinary arithmetical calculations.

The basis of the whole statistics from which are obtained the divisional scores in the Passenger Train Competition is the guard's journal. This document is made out separately for each division through which the train passes, and provides a detailed account of the train's time-keeping. Thus, while every minute lost in the division is recorded, any time gained, whether in running or in expeditious work at stations, is also shown. For example, a train may enter a division ten minutes late and may lose a further five minutes at a station. But it may gain seven minutes by reduction of time at other stations within the division, thus passing the boundary only eight minutes late, having produced a net saving of two minutes, for which the division would score points.

When the guard has completed his journal, he sends it to the divisional superintendent's office, where the whole of the daily journals for each train are sorted according to the class of train, such as through, local, branch, etc. The journals are sent to Swindon at the end of each four-weekly period, in hampers specially provided for the purpose. Some 170,000 passenger and 76,000 freight guards' journals are received each month. Motor lorries are necessary to convey the hampers from Swindon station to the general offices.

Immediately on arrival of the hampers, the staff set to work to arrange the journals ready for the calculating machines. The machine operators then proceed to abstract the following particulars for each division :—

(a). Number of times each train ran.
(b). Minutes late starting, or entering the division.
(c). Minutes late leaving division, or at destination.
(d). Total minutes lost in division.

Unpacking the hampers and sorting the guards' journals.

The "Burroughs" adding machines print these figures simultaneously, and automatically give the totals for each train for the month.

It is from these figures that the basis of the competition, *i.e.*, the "net minutes lost in division" is produced, and it is, of course, necessary to take into account the portion of the train's whole journey for which each division is responsible. The calculation is therefore made as follows :—

(a). Where a train commences its journey

Operators abstracting figures from the guards' journals.

in, and leaves, the division, the " net minutes lost " is the time late leaving the division.

(b). Where a train passes through a division, the " net minutes lost " is the difference between the time late entering and leaving the division.

(c). Where a train enters and completes its journey in a division, the " net minutes lost " is the difference between the time late entering the division and arriving at destination.

(d). Where the whole journey is in one division, the " net minutes lost " is the time late at destination.

Having arrived at a complete record of each train's working, the " Burroughs " machines are again brought into use to summarise the figures into totals for the through, local, branch, etc., trains, respectively. Finally, statements are typewritten, setting out the totals for each division, with a grand total for the whole line.

Each divisional superintendent receives a copy of the statements showing the detailed working in his division, which enables him to survey his results and to compare them with previous periods. Copies of all statements are despatched to the Superintendent of the Line, from whom the Editor receives the divisional results.

Preparing the statistical summaries.

What remains to be done when the divisional statements of "net minutes lost in division" are received in the editorial office is, perhaps, not the least interesting part of the story. The guiding principle, as in the case of the goods train competition, is a separate comparison in respect of each division, of the current figures of "net minutes lost" with the average for the six preceding months.

There is no direct comparison between one division and another, for the reason that the divisions, as is well known and appreciated, are not in any way truly comparable in conditions that affect the running of trains.

When the six months' average n.m.l. (net minutes lost) has been worked out for each division, the current month's n.m.l. is compared, and a plus or minus difference figure obtained. If there should be no difference, the score will be 10,000, which represents *status quo*—no falling away and no improvement. Usually, however, there is a substantial difference, and in accordance with the differences the scores either exceed or fall below 10,000.

It will be obvious that where, in any month, the n.m.l. are below the average, the score will be greater than 10,000; and conversely, where the n.m.l. are above the average, the score will be less than 10,000.

This may be made clearer by taking two examples from the results which were dealt with in last month's *Magazine*. Newport and Bristol divisions are chosen for this purpose as they, respectively, scored more and less than 10,000 in the first period covered by the competition.

NEWPORT.

Average n.m.l.	23,615
n.m.l. Four weeks ended 8/6/29 ..	16,174
	— 7,441

BRISTOL.

Average n.m.l.	60,036
n.m.l. Four weeks ended 8/6/29 ..	61,960
	+ 1,924

These differences are next equated to 10,000 by multiplying them by 10,000 and dividing by the average, the difference being, in the one case, *added to* 10,000, and in the other case *deducted from* 10,000, to give the month's scores. Thus:—

NEWPORT.

$$\frac{7{,}441 \times 10{,}000}{23{,}615} = 3{,}151$$

3,151 + 10,000 = 13,151 = score.

BRISTOL.

$$\frac{1{,}924 \times 10{,}000}{60{,}036} = 320$$

320 — 10,000 = 9,680 = score.

THE COMPETITION.

Unfortunately we have to go to press this month before the statistics for the latest 28-day period are available. The tables showing the progress of the competition have, therefore, to to be held over until our next issue.

PASSENGER TRAIN COMPETITION. FINAL SCORES FOR 1935.

Present Position.	Last Month.	Division.	Four Weeks ended Dec. 14.	Brought forward.	Net Total.
1	1	London	6,446	124,971	131,417
2	2	Bristol	8,978	120,376	129,354
3	3	Gloucester	9,410	119,755	129,165
4	5	Chester	12,240	116,835	129,075
5	6	Central Wales	12,658	114,631	127,289
6	8	Cardiff	12,072	113,684	125,756

Competing for minutes– The GWR's Passenger Train Competition

GEOFF LAMBERT

GOD'S WONDERFUL RAILWAY produced probably the best in-house railway magazine of all. Earlier this year, I found a few bound volumes in Berkelouw's book shop at Berrima. Naturally, I searched the indexes first, looking for mentions of "timetables". The preceding pages show one of the things I found.

The Passenger Train Competition commenced in May 1929 and was inspired by the earlier Goods Train Competition, devised in 1925 and begun in January 1927. This was described by the GWR magazine as the "*Most Interesting Railway Competition in History*". The object of both was to encourage competitiveness among the staff and between the GWR's Divisions to improve train performance and timekeeping. The magazine bent over backwards to assert that it was not between Divisions, but within them. This is belied by the fact that it was called competition, that a "ladder" was published monthly and that a shield was awarded at a dinner held for the winning Division each year. The reason for these competitions were never stated explicitly, but seems to have been concern by management about declining performance in the post WWI years. It seems to have worked—at least for a while—if the analysis which follows is valid.

Both competitions pitted Division against Division and built a kind of year-long "footy ladder" of scores. The GWR competition even ran to the notion of the "top six" of leading teams. Divisions were not really pitted against one another, but internally against themselves and were awarded points according to whether their performance in any one 4-week period was better or worse than their average performance over the preceding six months. For the Goods Train Competition the statistic which contributed to the scores was "Wagon-miles per Train Engine Hour". This was a standard statistic, mandated by law, and forwarded to the Ministry of Transport for monthly national publication. In essence it was a measure of goods train speed, though there was always criticism to the effect that a more meaningful measure would have been "Ton Miles per Train Engine Hour". Typical numbers for the statistic used might be of the order of 100-200 wagon-miles per train engine hour. The statistical basis for the Passenger Train Competition was the more meaningful "Nett Minutes Lost", as described in the GWR magazine article. Many trains probably ran to time and for an individual train, figures of a handful of minutes would be typical– it seems to have averaged about 1-2 minutes per train. Both measures were summed across all trains operating in a Division over a 4-week period. This period was used instead of the month required by the Ministry, because months vary in the number of days and would render the comparison of small changes meaningless. Although the working timetables were more or less Divisional-based (see map, p8), it was not always clear which trains contributed to the scores.

The example on our page 6 shows how the minutes lost numbers were manipulated to produce a score for the improvement achieved in each period by a Division. The "improvement" was expressed as a fraction of the average attained over the preceding six months. A statistician would say that that this fraction was then "normalized" against a chosen number, in this case 10,000. A statistician would also say that normalization was not necessary or that if any particular scale was needed, the normalization number ought to have been 100 because, in that case, the resultant number could have been expressed as a percentage. The reason for the selection of 10,000 remains obscure, but may have been because bigger numbers are somehow more impressive. It could have been relevant to the passenger competition because the monthly totals of minutes lost were of this order of magnitude. However, this number was originally used to normalize the Freight Train statistics, which were 2 orders of magnitude smaller.

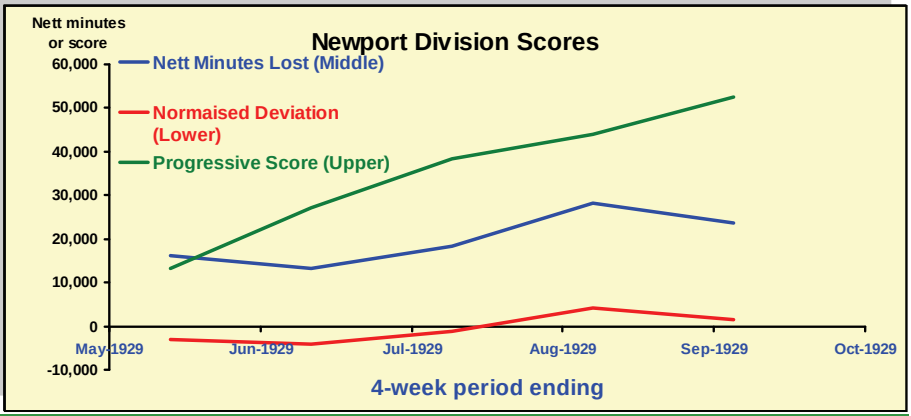
At the end of each period the score was added to produce a running score. The whole shebang was therefore a kind of a snapshot based on a moving average.

It took the GWR comptometrists about two months to collate the system's Guards' journals (there were 120,000 of them) and to get them to the Editor of the GWR Magazine (E.H.Hadley) for his further processing. Often, they arrived late, as was sadly apparent in the explanatory article shown. The all-year results were not announced until March the following year, after which the coveted Shield was handed over to the new winner. The winner seems most often to have been the London Division.

The GWR reported the results of the competition monthly, in rather breathless phenomenological terms without elaboration on what was actually happening to the train service behind the scoring system. The practice of normalization hid what the real figures were. However, the two worked examples in the magazine, give one an insight into these real numbers—at least for the Newport and Bristol Divisions. My own 5-month worked example for the Newport Division, extrapolated from the starting position, appears below.

Newport

4-weeks ending	Period #	Nett minutes lost	6-month Average	Deviation	Nornalised deviation	Score	Running score	Running Average
11-May-29	6-mo	23615	23615	<---(Six-month average at start of comp.)				
8-Jun-29	1	16174	23615	-7441	-3151	13151	13151	13151
6-Jul-29	2	13364	22375	-9010	-4027	14027	27178	13589
3-Aug-29	3	18449	20666	-2218	-1073	11073	38251	12750
31-Aug-29	4	28147	19805	8342	4212	5788	44039	11010
28-Sep-29	5	23548	20561	2987	1453	8547	52586	10517



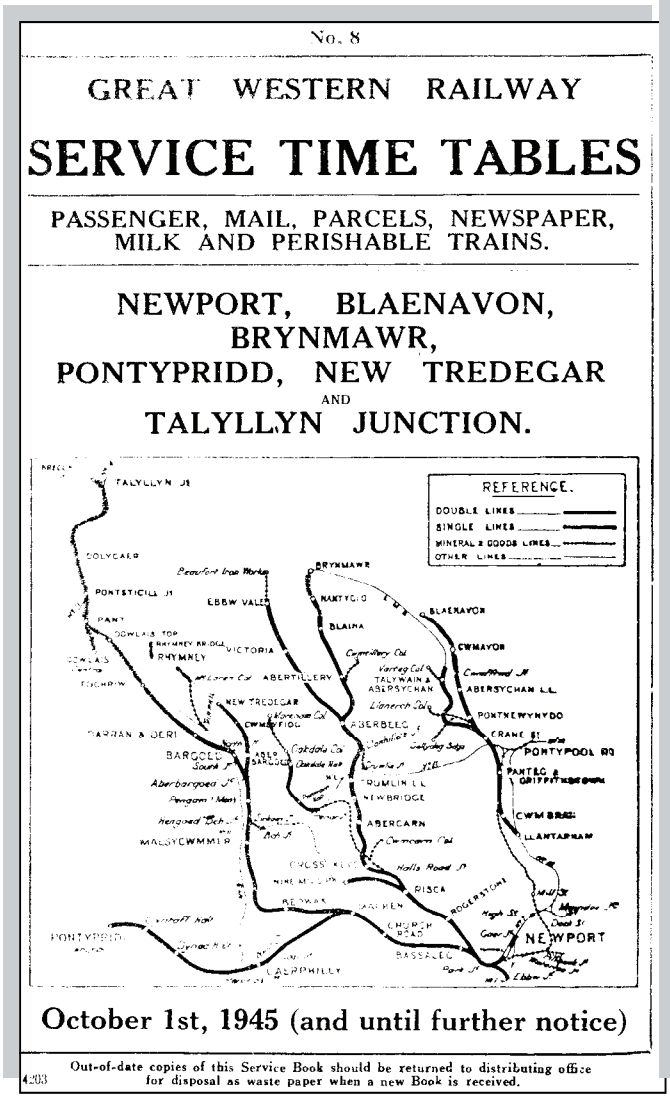
The upper (green) line and the figures that drive it made for exciting reading, giving a wonderful impression of steady progress. The line to watch, however, is the lower (red) line which shows that the green line was based upon a series of Ups and Downs, representing the vicissitudes of trying to keep trains to time. The blue line shows the actual minutes lost. One can see that, for the first couple of months after the initiation of the competition, Newport made a remarkable improvement in performance. One is tempted to say that the competition was having its desired effect on train running. However, over in next-door Bristol, things grew steadily worse, instead of better. Bristol dropped out of "the six" by September. Even in Newport, the high scores of the first few months do not represent good performance in absolute terms, but really a recovery from a previous poor performance. The score for August was terrible, probably because of Bank Holiday-induced congestion, and it was back to square 1 by September.

From perusal of GWR WTTs, it seems that Newport Division handled about 9,000 passenger trains per 4-week period, when the entire GWR was handling 120,000 per month. The figure of 23,615 minutes in May 1929 represents an average 2½ minute delay within the Newport Division.

We do not have the results for the first full year, but we have them for GWR's Centenary year of 1935 and these are shown at the foot of our page 6. These numbers are meaningless for calculation of realistic timekeeping delays. They do not convey an impression of steady improvement.

The Editor of the GWR Magazine even ran a guessing competition—a kind of football pools affair—and awarded a prize of one Guinea to the staff member who correctly predicted the order of the Divisions on the ladder at the end of the year.

Would it work today? One has to ask "Did it work then?"—the evidence presented here is equivocal. The GWR was said to have an exemplary *esprit de corps* and the prize award night was "*an evening that will live long in the memories of the staff who were present*". They finished the evening with a round of cheers for the General Manager, Sir Felix Pole. Somehow, I cannot imagine such a night being held by ARTC or V/Line. I certainly cannot imagine that the idea of continuous improvement in train running as a conceivable notion at the forefront of the minds of the staff.



No. 8

GREAT WESTERN RAILWAY

SERVICE TIME TABLES

PASSENGER, MAIL, PARCELS, NEWSPAPER, MILK AND PERISHABLE TRAINS.

NEWPORT, BLAENAVON, BRYNMAWR, PONTYPRIDD, NEW TREDEGAR AND TALYLLYN JUNCTION.

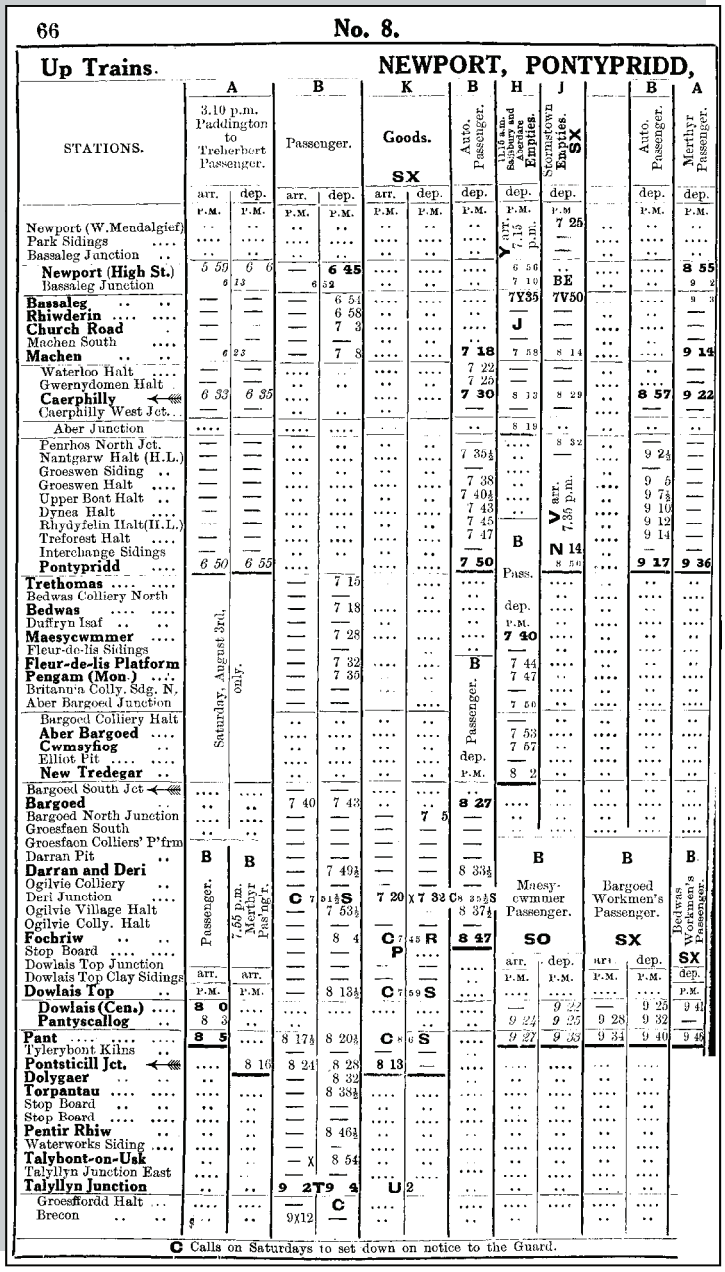
REFERENCE.
DOUBLE LINES
SINGLE LINES
MINERAL & GOODS LINES
OTHER LINES

October 1st, 1945 (and until further notice)

Out-of-date copies of this Service Book should be returned to distributing office for disposal as waste paper when a new Book is received.

4203

Newport area WTT 1945. This mostly conforms to the Division boundaries. Not shown are the main lines for which Newport was also responsible, principally the Cardiff line



66 No. 8.

Up Trains. NEWPORT, PONTYPRIDD,

STATIONS.	A 3.10 p.m. Paddington to Treherbert Passenger.		B Passenger.		K Goods. SX		B Auto. Passenger.	H Llanwern & Bassaleg and Aberdare Empties.	J Storkstown Empties. SX		B Auto. Passenger.	A Merthyr Passenger.
	arr.	dep.	arr.	dep.	arr.	dep.	dep.	dep.	dep.		dep.	dep.
	P.M.	P.M.	P.M.	P.M.	P.M.	P.M.	P.M.	P.M.	P.M.		P.M.	P.M.
Newport (W.Mendalgief)	..	..	..	..	..	..	..	Y arr. 7.15 p.m.	7 25	..	..	..
Park Sidings	....	....	....	....	....	....	....	—	—	....	....	....
Bassaleg Junction	..	..	..	..	..	..	..	—	—	..	..	..
Newport (High St.)	5 59	6 6	—	6 45	....	....	....	6 56	....	....	....	8 55
Bassaleg Junction	6 13		6 52	..	..	..	..	7 10	BE	..	..	9 2
Bassaleg	—	—	—	6 54	....	....	....	7Y35	7V50	....	....	9 3
Rhiwderin	—	—	—	6 58	....	....	....	—	—	..	..	—
Church Road ..	—	—	—	7 3	....	....	....	J	—	....	....	—
Machen South					....	....	....	—	—	..	..	—
Machen	6 23		—	7 8	....	....	7 18	7 58	8 14	....	....	9 14
Waterloo Halt	—	—	....	..	....	....	7 22	—	—	..	..	—
Gwernydomen Halt	—	—	....	..	....	....	7 25	—	—	....	....	—
Caerphilly ←⋘	6 33	6 35	....	..	....	....	7 30	8 13	8 29	..	8 57	9 22
Caerphilly West Jct.	—	—	..	..	....	....		—	—	..	—	—
Aber Junction	....		....	....	....	....	..	8 19	..	..	..	..
Penrhos North Jct.	—	—	....	..	....	....	....	....	8 32	....	—	—
Nantgarw Halt (H.L.)	—	—	....	....	....	....	7 35½	..	—	....	9 24	—
Groeswen Siding ..	—	—	....	..	....	....	....	—		....	—	—
Groeswen Halt	—	—	....	....	....	....	7 38	....		....	9 6	—
Upper Boat Halt ..	—	—	....	..	....	....	7 40½	....		....	9 7½	—
Dynea Halt	—	—	....	....	....	....	7 43	..	V arr. 7.35 p.m.	....	9 10	—
Rhydyfelin Halt(H.L.)	—	—	....	....	....	....	7 45	....		....	9 12	—
Treforest Halt	—	—	....	....	....	....	7 47	B		....	9 14	—
Interchange Sidings	—	—	....	..	....	....	—	—	N 14	....	—	—
Pontypridd	6 50	6 55	....	....	....	....	7 50	Pass.	8 50	....	9 17	9 36
Trethomas			—	7 15	....	....	....	....	....	....	..	..
Bedwas Colliery North			—	—	....	..	....	dep.	....	....	....	....
Bedwas			—	7 18	....	....	....	P.M.	....	....	..	..
Duffryn Isaf			—	—	..	..	..	7 40	....	....	....	....
Maesycwmmer			—	7 28	....	....	....	—	....	....	..	..
Fleur-de-lis Sidings			—	—	..	..	..	....	....	....	....	....
Fleur-de-lis Platform			—	7 32	....	....	B	7 44	....	....	..	..
Pengam (Mon.) ...			—	7 35	..	..	Passenger.	7 47	....	....	....	....
Britannia Colly. Sdg. N.			—	—	....	....		—	....	....	..	..
Aber Bargoed Junction			—	—		....		7 50	..	....	....	....
Bargoed Colliery Halt			..	..	..	..		....	....	....	..	..
Aber Bargoed			....	....	....	....		7 53	....	....	....	....
Cwmsyfiog ..			....	....	....	....		7 57	....	....	..	..
Elliot Pit			....	....	....	....	dep.	—	....	....	....	....
New Tredegar ..			..	..	..	..	P.M.	8 2	..	..	..	..
Bargoed South Jct ←⋘	....	....	....	....	....	....	....	....	....	..	..	..
Bargoed	..	..	7 40	7 43	....	....	8 27	....	....	....	....	....
Bargoed North Junction	....	....	—	—	—	7 5	—	..	....	....	....	....
Groesfaen South ..	..	..	—	—	—	—	—	....	....	....	....	....
Groesfaen Colliers' P'frm			—	—	—	—	—					
Darran Pit ..	B	B	—	—	—	—	—	B		B	B	B
Darran and Deri ..			—	7 49½	—	—	8 33½					
Ogilvie Colliery ..			—	—	—	—	—	Maesy-cwmmer Passenger.		Bargoed Workmen's Passenger.	Bedwas Workmen's Passenger.	
Deri Junction	Passenger.	Merthyr Pass'ger.	C 7 51½	S 7 53½	7 20	X 7 32	C 8 35½					
Ogilvie Village Halt			—	—	—	—	8 37½					
Ogilvie Colly. Halt			—	—	—	—	—					
Fochriw			—	8 4	C 7 45	R	8 47	SO		SX		SX
Stop Board			—	—	P	....						
Dowlais Top Junction			—	—	—	—	....	arr.	dep.	arr.	dep.	dep.
Dowlais Top Clay Sidings	arr.	arr.	—	—	—	—	..	P.M.	P.M.	P.M.	P.M.	P.M.
Dowlais Top ..	P.M.	P.M.	—	8 13½	C 7 59	S	....	....	....	....	....	....
Dowlais (Cen.)	8 0	....	....	....	....	....	....	—	9 22	—	9 25	9 41
Pantyscallog ..	8 3	..	....	....	....	....	..	9 24	9 25	9 28	9 32	—
Pant	8 5	....	8 17½	8 20½	C 8 6	S	....	9 27	9 33	9 34	9 40	9 48
Tylerybont Kilns ..												
Pontsticill Jct. ←⋘	....	8 16	8 24	8 28	8 13	—	....	....	....	....	....	....
Dolygaer	..		—	8 32			....	..	..	..	..	..
Torpantau	....	....	—	8 38½	....	....	....	....	....	....	....	....
Stop Board	..	..	—	—	....	....	....	....	....	....	....	....
Stop Board	....	....	—	—	....	....	....	....	....	....	....	....
Pentir Rhiw ..	..	..	—	8 46½	..	..	..	..	..	..	..	..
Waterworks Siding	....	....	—	—	....	....	....	....	....	....	....	....
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C Calls on Saturdays to set down on notice to the Guard.

A page from the Newport Division WTT of September 1935, the month of the GWR's centenary. Most of the passenger trains commenced, terminated or passed through Newport station.

What's in a name? Named Sydney private bus routes (7) — Move Zones

ROBERT HENDERSON

IT COULD BE SAID THAT THIS article in the series about "named bus routes" is really about non-routes run by buses. Westbus's "Move Zones" were in fact on-demand, or demand-responsive, bus services, which ran at night, when patronage is low.

Bus patronage is low on many feeder bus routes at night in Sydney's suburbs, particularly outer suburbs. This results from (a) the desire of many people to stay home at night and watch TV, (b) high car ownership, which enables people to use cars whenever possible or for one family member to transport another member at night, (c) a dislike of waiting for connecting buses in adverse weather conditions, and (d) the fear of attack at night that now exists in our community.

The same must be true in other capital cities. In smaller country towns, however, there is not a problem with how to run bus services at night – they just do not exist.

But in cities there is still an expectation that buses will run at nights, even if few use them. The provision of bus services on most bus routes was enshrined in stone when the Passenger Transport Act was first enacted in 1990. The minimum service levels imposed by that Act required most urban bus services to run until at least 9.30pm on weeknights. In larger, more populated, areas the time was later – up to 11.30pm and even later on Friday nights in some cases.

So some bus operators looked for ways of providing night bus services on an economical basis. One method was to combine two routes that both run to the same railway station, typically in a U-shaped route, where the bus travels outwards from the station via one route, makes some sort of connecting movement at the outer end and then returns to the station by the second route. While this method needs fewer resources per passenger, it has the disadvantage that some passengers are subjected to longer night journey times than the equivalent day journey on a standard bus route.

In an effort to make travel at night as quick and safe as possible, a few operators pursued the notion of "on-demand" services. This concept was used for a period in Canberra some years ago. Hopkinsons were, to the best of my knowledge, however, the first operator in Sydney to implement a significant on-demand service—from Merrylands station to West Guildford on weeknights as from 11 September 1986—that is, well before the Passenger Transport Act had been passed. Their service, known as Route 805 (later 804), ran for well over 20 years until the Ministry of Transport conducted its review of bus services in Region 3, effective from 22 March 2010, when the on-demand service was replaced by standard bus routes.

Westbus was another operator to put into place a similar service at Seven Hills as from 3 December 1994. It ran seven nights a week, serving all stops north of the station in the area normally served by Routes 717 and 718 (later also 714 and 715) in the suburbs of Lalor Park and Kings Langley. Its on-demand services commenced at about 9.30pm on weeknights, 8.00pm on Saturdays and 7.00pm on Sundays. They ran until a review of services in the area was implemented at the time that the first section of the North-West T-way commenced operation on 11 March 2007.

After Westbus changed hands from the Bosnjak family to the National Express Group in May 1999, the new management decided to embark on further on-demand services in suburbs further west – radiating from Mt Druitt, St Marys and Penrith railway stations. The services in these suburbs all started on 18 November 2002 and were given the generic name of "Move Zone". The four Move Zones were:

North Mt Druitt – covering standard routes 766, 767 and 769 to the suburbs of Whalan, Tregear, Lethbridge Park, Willmot and North St Marys.

South St Marys – covering standard routes 771, 772 and 773 to the suburbs of Oxley Park, Colyton, St Clair and Erskine Park.

North Penrith – covering standard routes 782, 785 and 787 to the suburbs of Werrington Downs, Cambridge Gardens, Mt Pleasant and Cranebrook.

South Penrith – covering standard routes 790 (part), 791, 796 and 797 to the suburbs of Kingswood, Jamisontown, South Penrith, Regentville and Glenmore Park.

As can be seen from the printed timetables, in each Move Zone there were five departures from the railway station on weeknights between 7.25 and 10.55pm, three or four departures on Saturday nights between 6.15 and 9.30pm, and two or three departures on Sunday nights between 6.00 and 8.30pm.

The Move Zone services were primarily designed for use by passengers boarding buses at the relevant railway station, but provision was made for passengers wishing to travel towards the railway station, who could ring a 1800 phone number without charge to book a bus trip.

It can only concluded that the Move Zone bus services were not totally successful—although for reasons unknown—because the four services ran for just under two years. They were replaced on 1 November 2004 by a series of fixed routes, which similarly covered several standard daytime bus routes. These routes were all given the prefix "N", presumably an abbreviation for "night". In some cases these N routes also ran during the day on weekends, when patronage was also light.

The "N" routes were:

N1: Penrith – Glenmore Park, which ran at both night and weekends, covering weekday daytime Routes 797 and 798.

N2: Penrith – South Penrith - Jamisontown, which ran at both night and weekends, covering weekday daytime Routes 791 and 794.

N3: Penrith – Cranebrook – Cambridge Gardens – Cambridge Park, which ran at night only, covering daytime Routes 782-786.

N4: St Marys – Willmot – Mt Druitt, which ran at night only, covering daytime Routes 766 and 769. Altered to Mt Druitt – Willmot in 2007.

N5: St Marys – Colyton – St Clair – Erskine Park, which ran at night only, covering daytime Routes 770-773.

N6 (commenced 2007): St Marys – Tregear, which ran at night only, covering part of daytime Routes 769 and replacing part of N4.

After running for almost five years, the N routes were in turn discontinued as from 11 October 2009 and replaced with standard daytime bus routes in each area extended to run at all operating hours, when the Ministry of Transport review for Region 1 became effective. That last change appears to reflect Ministry of Transport's policy that bus services should run in a standard fashion throughout the whole period of operation - day and night, weekday and weekends.

move zone Penrith South

operating in Kingswood, Glenmore Park Jamisontown, South Penrith and Regentville

From Penrith station you can travel to any *move**zone*** bus stop in Kingswood, Glenmore Park, Jamisontown, South Penrith and Regentville after 7pm Weekdays and 6pm Saturday & Sunday to the last service.

*move**zone*** buses will connect with major trains arriving at Penrith station. Normal fares apply.

Customers wanting to travel to Penrith station from the *move**zone*** after 7pm Weekdays and 6pm Saturday & Sunday must book a bus by calling the *move**zone*** freecall number:

1800 BUS NOW
(1800 287 669)

www.westbus.com.au

This number operates from 9.00am until: 10.25pm Weekdays, 8.45pm Saturday, 6.30pm Sunday

Version 5/03

westbus
We're moving you!

Customer Service 9890 0000

move zone Penrith North

operating in Cranebrook, Mt Pleasant, Werrington Downs and Cambridge Gardens

From Penrith station you can travel to any *move**zone*** bus stop in Cranebrook, Mt Pleasant, Werrington Downs and Cambridge Gardens after 7pm Weekdays and 6pm Saturday & Sunday to the last service.

*move**zone*** buses will connect with major trains arriving at Penrith station. Normal fares apply.

Customers wanting to travel to Penrith station from the *move**zone*** after 7pm Weekdays and 6pm Saturday & Sunday must book a bus by calling the *move**zone*** freecall number:

1800 BUS NOW
(1800 287 669)

www.westbus.com.au

This number operates from 9.00am until: 10.25pm Weekdays, 8.45pm Saturday, 7.15pm Sunday

Version 5/03

westbus
We're moving you!

Customer Service 9890 0000

move zone Penrith North

timetable from Penrith Station

Weekdays	Saturday	Sunday
7.25pm	6.15pm	6.45pm
7.55pm	7.15pm	7.45pm
8.55pm	8.15pm	
9.55pm	9.15pm	
10.55pm		

move zone Penrith South

timetable from Penrith Station

Weekdays	Saturday	Sunday
7.25pm	7.15pm	6.00pm
7.55pm	8.15pm	7.00pm
8.55pm	9.15pm	
9.55pm		
10.55pm		

move zone
Mt Druitt North

operating in North St Marys, Whalan, Tregear, Lethbridge Park and Willmot

From Mt Druitt station you can travel to any *move**zone*** bus stop in North St Marys, Whalan, Tregear, Lethbridge Park and Willmot after 7pm Weekdays and 6pm Saturday & Sunday to the last service.

*move**zone*** buses will connect with major trains arriving at Mt Druitt station. Normal fares apply.

Customers wanting to travel to Mt Druitt station from the *move**zone*** after 7pm Weekdays and 6pm Saturday & Sunday must book a bus by calling the *move**zone*** freecall number:

1800 BUS NOW
(1800 287 669)
www.westbus.com.au

This number operates from 9.00am until: 10.00pm Weekdays, 9.00 pm Saturday, 8.00pm Sunday

Version 5/03

westbus
We're moving you!
Customer Service 9890 0000

move zone
St Marys South

operating in St Marys South, Oxley Park, Colyton, St Clair and Erskine Park

From St Marys station you can travel to any *move**zone*** bus stop in Oxley Park, Colyton, St Clair and Erskine Park after 7pm Weekdays and 6pm Saturday & Sunday to the last service.

*move**zone*** buses will connect with major trains arriving at St Marys station. Normal fares apply.

Customers wanting to travel to St Marys station from the *move**zone*** after 7pm Weekdays and 6pm Saturday & Sunday must book a bus by calling the *move**zone*** freecall number:

1800 BUS NOW
(1800 287 669)
www.westbus.com.au

This number operates from 9.00am until: 10.05pm Weekdays, 8.35pm Saturday, 7.35pm Sunday

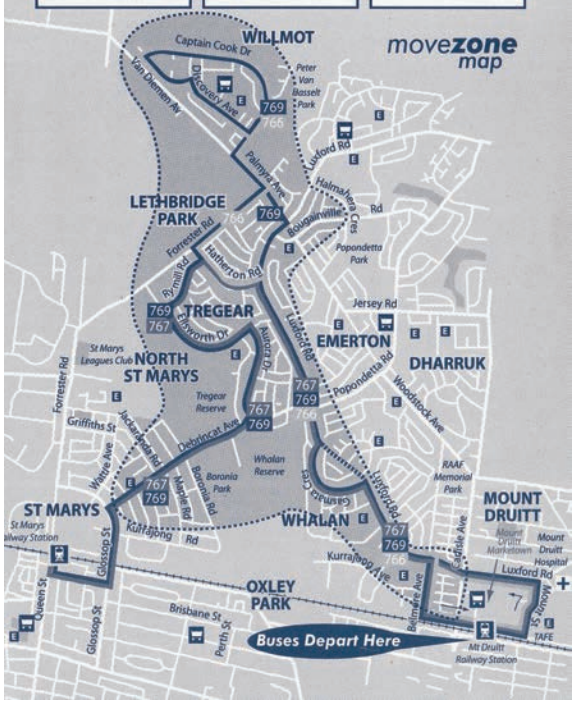
Version 5/03

westbus
We're moving you!
Customer Service 9890 0000

move zone
Mt Druitt North

timetable from Mt Druitt Station

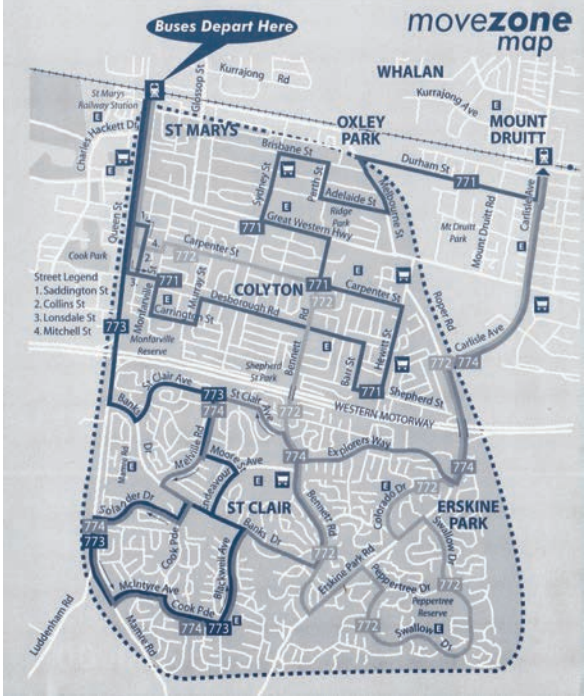
Weekdays	Saturday	Sunday
7.30pm	6.30pm	6.30pm
8.00pm	7.30pm	7.30pm
8.30pm	8.30pm	8.30pm
9.30pm	9.30pm	
10.30pm		



move zone
St Marys South

timetable from St Marys Station

Weekdays	Saturday	Sunday
7.35pm	7.05pm	7.05pm
8.05pm	8.05pm	8.05pm
8.35pm	9.05pm	
9.35pm		
10.35pm		



“Lovely morning for a round of golf”—a brief history of the Rye & Camber Tramway

STEVEN HABY

I FIRST READ ABOUT THE RYE & Camber Tramway in *British narrow gauge steam: a pictorial survey* by Michael Messenger (D. Bradford Barton, 1973), which I purchased on eBay recently. My interest was sufficient to find out more about this unusual tramway.

Background

The Rye & Camber was a 1½ mile long tramway running from the small town of Rye to the Rye golf club and was primarily constructed to transport golfers to and from the golf club but also to serve the Rye Harbour. As the line was constructed on private land it did not require any Parliamentary powers.

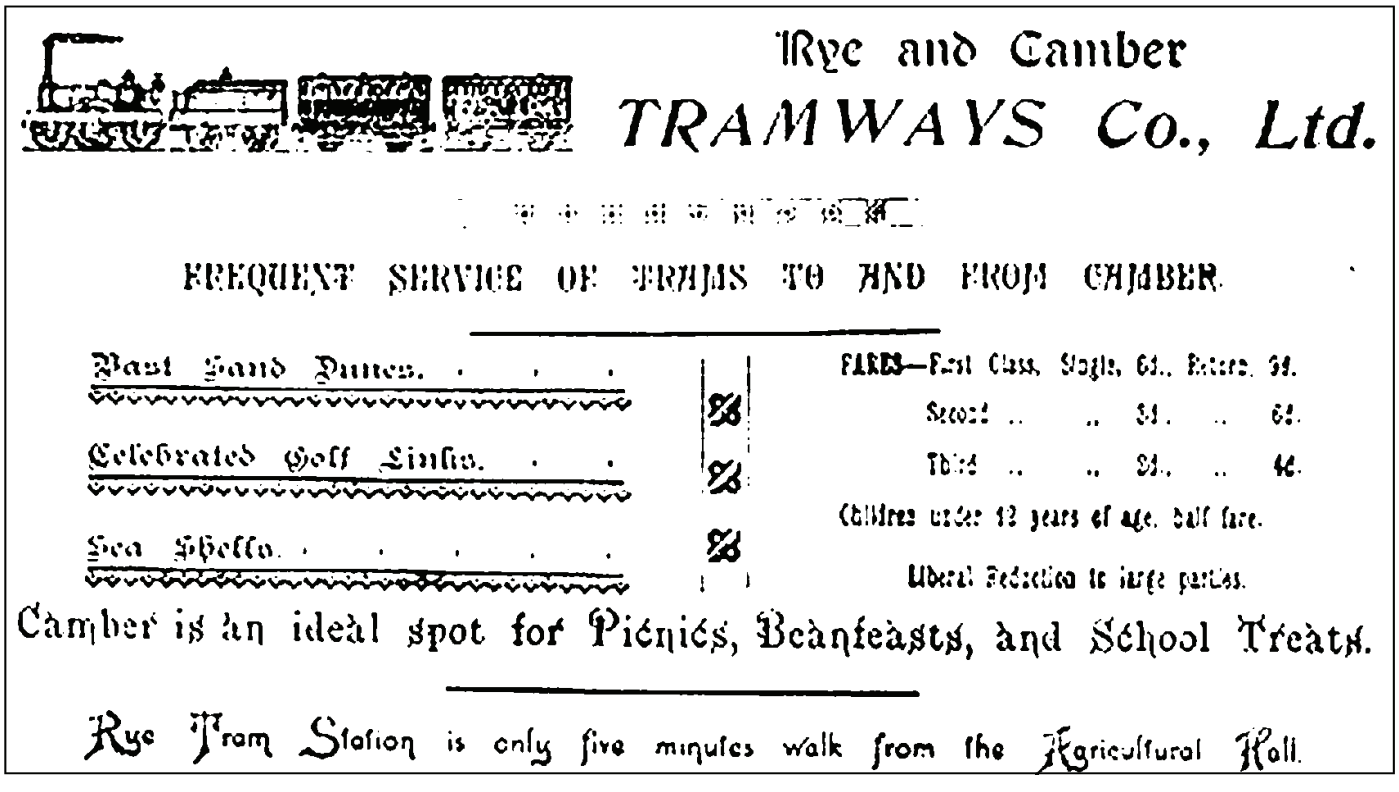
The directors of the newly formed Rye & Camber Tramway Company appointed a Mr. H. F. Stephens (later to be better known as Lt Col. Stephens, the enthusiastic proponent of light railways) to design and construct the line.

On Saturday 13 July 1895 the line was officially opened to traffic and operated initially with a small 2-4-0 tank engine named *Camber* and a bogie carriage supplied by W.G. Bagnall of Stafford. There were also two 4 wheel open wagons.

Picture 1: *Camber* and the first carriage on a trial run prior to the official opening of the line. (D. A. Boreham Collection)

The carriage provided first and second class accommodation and regular passengers could obtain seasonal tickets. A special seasonal ticket was available for fisherman and parcels were also carried at a nominal rate.

There were two stations (Rye which included the locomotive and carriage sheds) and Golf Links the original terminus. which included a run round loop and later a siding ran off the loop at the up end to Rother Pier which was constructed by the Admiralty for their own use after they



Rye and Camber

TRAMWAYS Co., Ltd.

FREQUENT SERVICE OF TRAINS TO AND FROM CAMBER.

East Sand Dunes. . . . %

Celebrated Golf Links. . . %

Sea Shells. . . . . %

FARES—First Class, Single, 6d., Return, 9d.

Second .. .. 3d. .. 6d.

Third .. .. 2d. .. 4d.

Children under 12 years of age, half fare.

Liberal Reduction to large parties.

Camber is an ideal spot for Picnics, Beanfeasts, and School Treats.

Rye Tram Station is only five minutes walk from the Agricultural Hall.

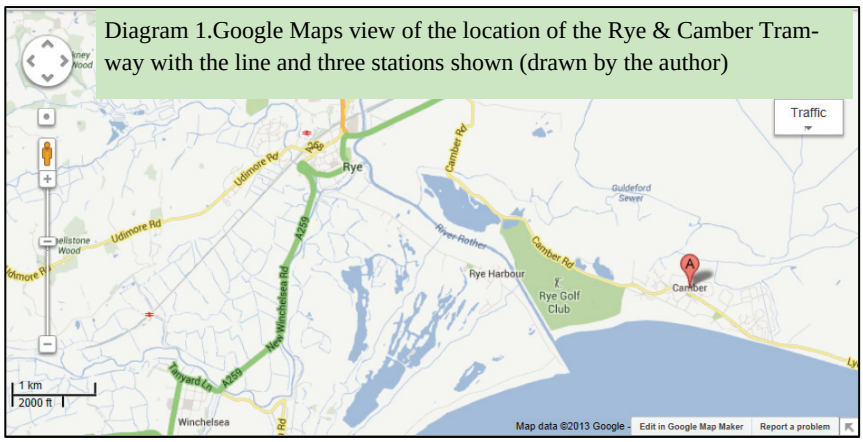


Diagram 1.Google Maps view of the location of the Rye & Camber Tramway with the line and three stations shown (drawn by the author)

requisitioned the tramway during the Second World War.

The increase in patronage lead to the purchase of an additional passenger carriage in 1896 built by E.P.S. Jones at Rye and the following year a second 2-4-0 tank engine *Victoria* was acquired from Bagnall.

Part of the line's patronage growth was attributed to the increasing numbers of day trippers travelling to visit the Camber Sands which fronted the English Channel. As a result an extension was constructed for about half a mile to a new station named Camber Sands. This station consisted of a simple run round loop (see illustration on next page).

Despite the traffic being carried the line was an expensive proposition and required a subsidy from the golf club to balance the books. In 1925 the Company obtained a small 4 wheel petrol locomotive from the Kent Construction Company. According to some reports the locomotive resembled a large lawnmower. Despite its ungainly appearance (page 14) it was an immediate success and the second locomotive *Victoria* was sold for scrap and *Camber* was set aside as the spare locomotive.

Sadly the line could not compete with road traffic and the golfing fraternity increasingly turned to the use of cars to travel to and from the club; day trippers to the sands comprised the bulk of the revenue. The line was closed around the declaration of World War Two and never reopened except when the Admiralty requisitioned the line for the transport of labour and material for the reconstruction at Rye Harbour.

Services

The principle of 'one engine in steam' operated on the line for its entire history and there were never any signalling or safeworking in operation. A one way trip to Golf Links took about 9 minutes with the extension to Camber Sands an additional 5 minutes.

The timetable for June 1908 (just prior to the extension to Camber Sands opening) saw departures ex Rye on weekdays at 1000, 1100, 1200, 1330, 1400, 1430, 1530, 1640, 1750 and 1830. Departures *ex*-Golf Links on weekdays were at 1020, 1120, 1230, 1350, 1415, 1450, 1540, 1700, 1800 and 1900.

The 1350 *ex*-Golf Links and 1400 *ex*-Rye would have required some slick shunting in regards to the 9 minute travel time unless the second engine was ready to take over on arrival at Rye.

Saturdays saw the same timetable in operation for weekdays except for an additional 0930 departure *ex*-Rye and 0940 *ex*-Golf Links and a 2000 service *ex*-Rye departing Golf Links at 2015.

On Sundays an interesting timetable operated with services *ex*-Rye at 1000, 1400, 1430, 1500, 1600, 1630, 1730, 1800, 1830 and return trips *ex*-Golf Links at 1015, 1415, 1445, 1530, 1615, 1645, 1740, 1815, 1845. It is not known why there was such a gap between the morning service and the first of the afternoon runs. Speculation by the author suggests that a special trip was provided for non-God fearing golfers wanting to make an early start on the greens on the day of the Sabbath.

By October 1925 the weekday (including Saturdays) timetable had been somewhat simplified with trips *ex*-Rye at 1000, 1100, 1200, 1400 then hourly until 1800. Return trips *ex*-Camber Sands departed at 1015, 1115, 1215, 1415 then hourly until 1815.

Sundays saw trips *ex*-Rye at 1000, 1110, 1400 then hourly to 1800 and returning 15 minutes later *ex*-Camber Sands. Interestingly the timetable indicated that special trams could be operated for 12 or more passengers (given that the original carriage could carry 20 passengers and the second car could carry 25 passenger). From time to time only one carriage was used on the regular service.

Aftermath

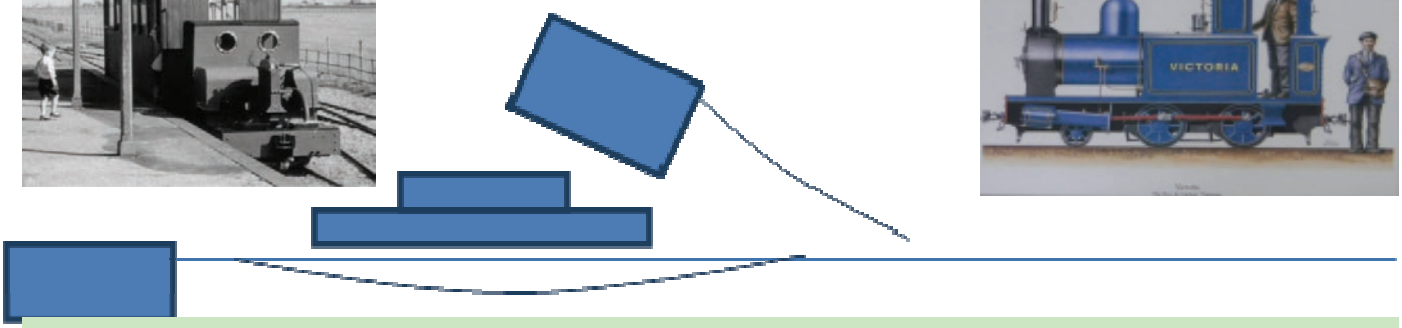
After the war the Admiralty handed back the tramway to the Company which decided to wind up activities due to the neglected state of the track and rolling stock. By September 1947 the land that was leased from Rye Council was surrendered and Camber and the petrol locomotive were sold and the track dismantled. Golf Links station survives and is now a shop but very little of the rest of the tramway remains.

References

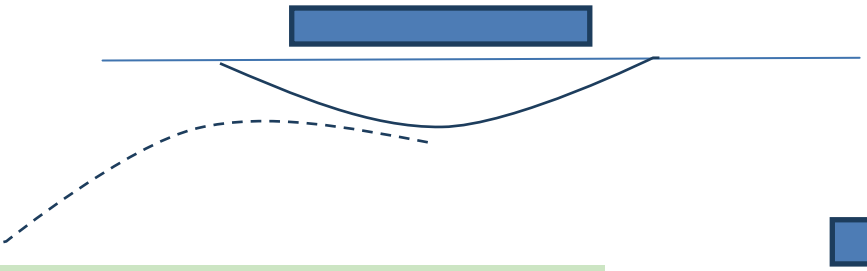
Harding, Peter A. The Rye & Camber tramway, Surrey : Peter A Harding, 1985. ISBN 09509414 17

Messenger, Michael J. British narrow gauge steam.Truro : D Bradford Barton, 1973

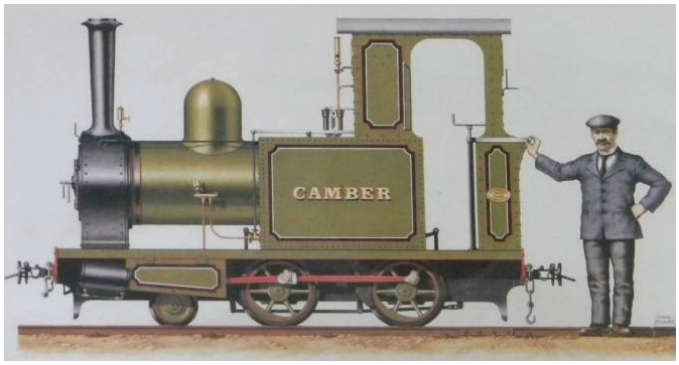
Morgan, John Scott. The Colonel Stephens' railways : a view from the past. Surrey : Ian Allen, 1999. ISBN 0711026289



Schematic plan of Rye station showing the two sheds and station and simple track plan. (Drawn by author)



Above: Schematic plan of Golf Links station showing the siding added later running off the loop at the up end to Rother Pier (photo below). Right: Schematic plan of Camber Sands station. (Drawn by author)



Swans, Cats, Dogs, Tigers, Crows, Hawks and Magpies. A menagerie of footy timetables.

GEOFF LAMBERT

The genesis of Australian Rules Football and of Australian railways happened almost simultaneously (1859, 1854) and within "cooee" of each other (Flinders St and the MCG Hotel in Wellington Parade). Trains were involved from the start and several stations– for instance Jolimont—were built at least partially to serve football grounds.

The game of the century, Geelong v South Melbourne played on 4 September 1886 was arguably the most important Aussie Rules game to be played in the 19th century. Although regular final games had not yet been instituted, the VFA arranged this game so as to determine the Premiers for 1886; both teams had gone through the season undefeated. The game was held at South's Emerald Hill ground and a then-record crowd of 34,121 paid 6d per head for a total revenue of £747/7/-. Two special trains brought the local team and two thousand supporters from Geelong. An attempt was made to wreck one of these trains by removing a section of rail near Newport - luckily the attempt was aborted. There were long lines of people and overcrowded Hansom Cabs taking people from Melbourne to South Melbourne prior to the game. After the game, thousands of people lined Clarendon Street, South Melbourne, to cheer the victorious Geelong on their way.

By 1900, the game had become the most popular sport in Victoria. Special timetables for "home and away" matches became common and the whole railway system was often disrupted for finals matches.

It was ever thus. Today the tradition continues– the rules might have changed, the VFA has become the AFL and the trains have changed, but the relationship is still firm– witness these V/Line timetables for Round 12 of the 2013. Four games on two grounds each closely associated with a railway station– especially *Etihad* which is linked by a kind of pedestrian umbilical cord to Southern Cross Station.

In 1886, to commence a game at 7:50 at night was unimaginable; to imagine that supporters would be willing to go to it and travel to and from to places like Wendouree, there to arrive at almost 1 AM must have seemed like something like *Alice in Wonderland*. After all, how could Wendouree possibly harbour Hawks and Blues supporters? - Nah. How could they imagine a stadium named after a Middle Eastern Flying Machine company?

Notice that how few of these trains—mainly the very later night ones—are actually Specials. It is a measure of the times that one can get from Spencer St to Wendouree in under 90 minutes late on a Sunday night.

In our house, the game on page 16, between the Doggies (me) and the Pies (Judy) at Etihad was of particular interest. Like Julia, I am a Doggies fan and became wedded to them on the day of the 1954 Preliminary Final. Next week– the Premiership! What a good pick! It's been all downhill from there—the match on page 16 was a dog of a game. Don't ask.

PS. What team does the V/Line rover below play for?

AFL Footy Round 12 – Sunday 16 June 2013

Collingwood v Bulldogs at Etihad @ 16:40

Geelong to Melbourne

Marshall	13:25	14:21
South Geelong	13:30	14:26
Geelong Stn	13:35	14:31
North Geelong	13:38	14:34
North Shore	13:41	14:37
Corio	↓	14:40
Lara	13:47	14:45
Little River	↓	14:50
Southern Cross	14:34	15:34

Melbourne to Geelong

	SPECIAL	
Southern Cross	19:55	20:37
Little River	20:38d	21:12
Lara	20:44d	21:18
Corio	20:48d	21:22
North Shore	20:50d	21:24
North Geelong	20:54d	21:28
Geelong Stn	21:00d	21:32
South Geelong	21:04d	21:38
Marshall	21:13	21:46

Ballarat to Melbourne

Wendouree		14:23
Ballarat	13:11	14:31
Ballan	13:27	14:47
Bacchus Marsh	13:44	15:04
Melton	13:52	15:12
Rockbank	13:57	↓
Deer Park	14:04	↓
Ardeer	14:07	↓
Southern Cross	14:30	15:48

Melbourne to Ballarat

	SPECIAL
Southern Cross	19:52
Ardeer	20:11d
Deer Park	20:14d
Rockbank	20:22d
Melton	20:27d
Bacchus Marsh	20:38d
Ballan	20:55d
Ballarat	21:11d
Wendouree	21:19

Bendigo to Melbourne

Bendigo	12:32	14:24
Kangaroo Flat	12:36	14:28
Castlemaine	12:53	14:46
Malmsbury	13:05	14:57
Kyneton	13:13	15:05
Woodend	13:21	15:13
Macedon	13:27	15:19
Gisborne	13:31	15:23
Riddells Creek	13:36	15:28
Clarkefield	13:41	15:33
Southern Cross	14:26	16:23

Melbourne to Bendigo

	SPECIAL	
Southern Cross	19:45	20:20
Clarkefield	20:29d	21:00
Riddells Creek	20:33d	21:05
Gisborne	20:38d	21:11
Macedon	20:42d	21:15
Woodend	20:48d	21:21
Kyneton	20:56d	21:28
Malmsbury	21:01d	21:34
Castlemaine	21:22d	21:47
Kangaroo Flat	21:39d	22:03
Bendigo	21:44	22:11

Seymour to Melbourne

Seymour	13:09	14:29
Tallarook	13:15	14:35
Broadford	13:25	14:45
Kilmore East	13:32	14:52
Wandong	13:39	14:59
Heathcote Junction	13:41	15:01
Wallan	13:46	15:06
Donnybrook	13:54	15:14
Southern Cross	14:27	15:49

Melbourne to Seymour

Southern Cross	19:55
Donnybrook	20:24
Wallan	20:33
Heathcote Junction	20:38
Wandong	20:40
Kilmore East	20:46
Broadford	20:53
Tallarook	21:02
Seymour	21:13

Traralgon to Melbourne

Traralgon	11:40	12:58
Morwell	11:49	13:07
Moe Stn	11:58	13:16
Trafalgar	12:04	13:22
Yarragon	12:09	13:28
Warragul	12:17	13:37
Drouin	12:22	13:42
Longwarry	12:28	13:48
Bunyip	12:31	13:51
Garfield	12:34	13:54
Tynong	12:38	13:58
Nar Nar Goon	12:42	14:02
Southern Cross	13:51	15:11

Melbourne to Traralgon

	ALTERED
Southern Cross	19:45
Nar Nar Goon	20:45
Tynong	20:49
Garfield	20:52
Bunyip	20:56
Longwarry	21:00
Drouin	21:06
Warragul	21:12
Yarragon	21:19
Trafalgar	21:24
Moe	21:30
Morwell	21:40
Traralgon	21:52

29816VLN–FT 110613

Legend

d – Stops to drop off only. Black times – train services. Note: Service arrives in Melbourne near game start time. Special Service denotes additional service. Altered Service denotes an alteration to an existing service. The 19:35 Traralgon is altered to depart at 19:45.

Call 1800 800 007 vline.com.au/footy

The name *Etihad* derives from the Arabic word for "union" (الاتحاد *al-Ātiḥād*). In the outside world, "Union" means a different type of footy altogether.

V/Line