The Times

November, 1999   Issue No. 188 (Vol. 16 No.11)

By workers train

The worker's train at Warrnambool, January 1937. Photo: J.L.Buckland collection, courtesy ARHS Bulletin

From Warrnambool¼
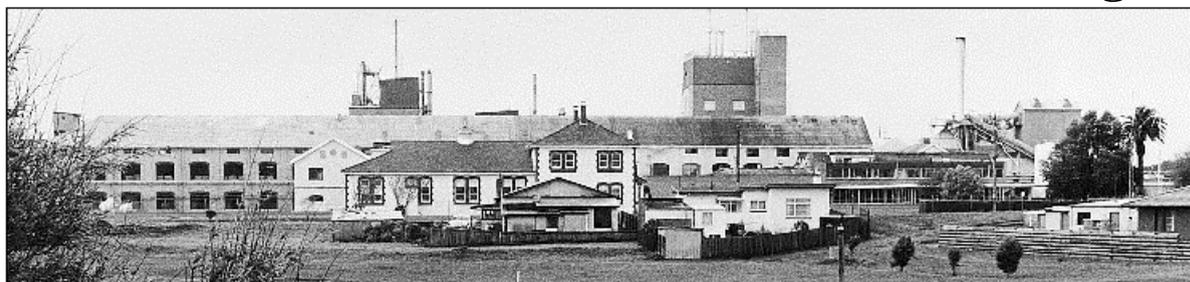
¼to Dennington

The milk factory at Dennington. Photo:Warrnambool Standard

Four decades of varied timetables of an unusual
Victorian Railways "suburban" service

The Times

The Warrnambool–Dennington Local Train 1919-1957

In Victoria's south-west, a guaranteed passenger train ran a 7-minute 3-mile service from Warrnambool to Dennington for workers at the local milk factory. **JACK MCLEAN** *analyses 38 years of history of this little six days a week "milk run".*

Every time table records some details of some part of a railway at a certain time. If a continuous series of time tables is available then it should be possible to piece together a sort of history of that part of the railway. Changes can then be seen and eventually the reasons for the changes.

Time tables for the Dennington local train are still readily available (at least I think so) and the local train and the railway in the area were easily described. My father (then a young railway clerk at Warrnambool station) perhaps never knew why in 1908 Dennington was chosen as the site for the new Nestlé factory (on our front cover). However, it was in operation in 1911 and workmen's numbers were sufficient in 1919 for the Company to arrange for the running of trains to get them to work and home again.

The "Special Train Notice No S5200/19" illustrated here as **Figure 1** shows that on 1 September 1919, a regular passenger service commenced running between Warrnambool and Dennington "for the accommodation of employees of the Nestlé and Anglo Swiss Condensed Milk Company." On 29 August (when the Special Train Notice was printed in Melbourne) the date of commencing the service may have been uncertain and so "1 September 1919" was hand written on the circular probably after a telegram had been received from Spencer Street. Almost 38 years later, another circular WTT 69/57 shown here as **Figure 2** announced that the last local train was to run to and from Dennington on Friday 16 August 1957.

The Synopsis of the time tables of local passenger trains and light engines shown as Table 1 enables a comparison to be made between the train times at various dates. Each working day morning for almost 38 years, the Nestlé workers travelled westward by train.

S. 5200/19. (A. 2.)

VICTORIAN RAILWAYS.

TRANSPORTATION BRANCH,
GENERAL SUPERINTENDENT'S OFFICE,
Spencer-street, Melbourne, August 29, 1919.

WARRNAMBOOL—DENNINGTON.

LOCAL PASSENGER SERVICE.
Commenc. Monday 1st Septem ... 1919.

For the accommodation of employes of the Nestle and Anglo Swiss Condensed Milk Co. and others, a regular passenger train service will be run as under :—

DOWN.		Train Daily Fri. except. †	Light Engine Saturdays.	Light Engine Mons., Tues., Thurs. & Fri.	Light Engine Wednesdays.
		A.M.	A.M.	P.M.	P.M.
Warrnambool ...	Dep.	7 30	11 45	4 55	5 20 Fol 3B
Dennington ...	Arr.	7 38	11 55	5 5	5 30
		Leave cars	Pick up train	Pick up train	Pick up train
		A.M.	P.M.	P.M.	P.M.
		Light eng.			
Dennington ...	Dep.	7 50	12 10 (train)	5 22 (train)	5 40 (train
Warrnambool ...	Arr.	8 0	12 18	5 30	5 48

No. 13 Up, if run, to wait back at Illowa. Engines when running light to run tender first.

S.M., Warrnambool, to arrange for 3 or 4 second class cars, van, and Guard, brake vehicle to be at each end so as to avoid reversing van.

Rolling Stock Branch to arrange for pilot engine to run this Service. Cars of 7.30 a.m. Down to remain at Dennington for return trip in the afternoon.

It is expected about 150 employes will travel to and fro each day, but this number may increase. S.M. to closely watch this.

† On Fridays passengers will travel by the 7.30 a.m. Hamilton train, which will require to be strengthened with the Dennington train cars, the latter to be cut off at Dennington to form return train in the evening.

TICKETS.—Employes of the Company are to be issued special Weekly Workmen's Tickets at 2/- each, available for one return journey daily from Monday to Saturday inclusive by the special service as above (including the 7.30 a.m. Down Ordinary on Fridays). No deposit is to be charged on the ticket.

For general instructions regarding issuing, dating, checking and collection of Workmen's Tickets, see Addenda to Passenger Fares Book (P.F. 8/1), clause 25, pages 14 and 15.

Ordinary passengers may also be booked at second-class ordinary fares by these Workmen's Special Trains.

S.M., Warrnambool and Dennington to keep an accurate return of bookings in respect of these trains—(a) by Weekly Tickets, (b) by Ordinary Tickets—as the service is guaranteed by the Company. Return to be sent to Superintendent Passenger Train Service (Room 2) by first train each Monday showing the number, description and rate of tickets issued, and revenue.

Figure 1 The *Alpha*– start of the service

Sometimes the train had only one passenger carriage and it was often hauled by the Warrnambool shunting engine. Originally it was an E class 0-6-2 tank engine (front cover) and later a D3 4-6-0 or a J class 2-8-0 (and maybe engines of other classes).

Figure 2 The *Omega*- end of the service

The carriage "set" was left at Dennington during the day, while the engine ran back eastwards to Warrnambool, and continued with its shunting duties. Around mid-day on Saturdays and around 4 pm on other week days, the engine set out westwards for Dennington and brought the carriage "set" (and the workers) back eastwards to Warrnambool in time for lunch or dinner.

The line between Warrnambool and Koroit in 1919 was single and worked by large electric staff on the sections Warrnambool–Illowa and Illowa–Koroit. In other words, on this part of the line, trains going in opposite directions could pass each other only at Warrnambool, Illowa or Koroit. As the authority for the local train to go as far as the intermediate station Dennington,

and for the engine to return to Warrnambool, the engine driver was given a Warrnambool-Illowa electric staff. When the passenger carriage was shunted clear of the main line at Dennington, where the staff was used to unlock and later secure the main line points, the engine returned to Warrnambool and the driver gave up the staff to the signalman there.

At mid-day on Saturdays and during the afternoon on week days, the reverse applied. While the engine or the train was between Warrnambool and Dennington, it was carrying a Warrnambool–Illowa electric staff and so during that time, the single line between Warrnambool and Illowa could not be used by any other train.

This daily forward and return service went on more or less whenever there

was work at the Factory, (but apparently never on Sundays). There were variations to the time table for a number of reasons. Some variations were caused by the need for the local train or light engine to avoid the times of existing trains, or to operate in accord with the existing or changed railway safe-working arrangements. During World War Two and for some time after, changes to the time table resulted from alterations to working hours including the abandonment of Saturday work. There were several other reasons for alterations and even the inaugural S5200/19 had variations from the proposed simple service.

A dagger (or obelisk) is shown beside the heading of the first column and the relevant footnote informs us that "*On Fridays, passengers will travel by the 7.30 am Hamilton train which will require to be strengthened with the Dennington train cars, the latter being cut off at Dennington to form return trip in the evening*". These trains are shown in the time Table Synopsis with the reference "a"

The reference to the Dennington cars being attached to the Hamilton mixed does not seem to have been repeated in later circulars and so until a copy of the original circular S5200/19 came to light in 1998, readers of time tables wondered why the 4.55pm light engine on Fridays was not shown as an empty car train.

The above-mentioned 7.30am Down Hamilton mixed was scheduled to cross No 13 Up, "if run, at Illowa," and so No 13 (a 7.30am goods train from Koroit when required) had "to wait back at Illowa" while the workmen's train and the returning light engine occupied the Warrnambool-Illowa electric staff section as mentioned above. The use of odd numbers for Down trains and even numbers for Up trains appeared for the first time in Victorian Working Time Tables on 10 December 1923 and so in 1919, No 13 (from Koroit) had to be described as "No 13 Up".

The Special Train Notice S5200/19 also shows that the 5.20pm Light Engine Wednesdays, had to "Fol 3H" (that is follow No 3 Hamilton train), a previously existing 5pm Warrnambool-Hamilton mixed train, which did not clear the Illowa electric staff section until 5.14. In consequence the later running of the Dennington light engine

at 5.20pm on Wednesdays caused the up afternoon workmen's train on Wednesdays to run 18 minutes later than on other days. (It might be asked did the Nestlé employees work an extra 18 minutes on Wednesdays or did they just wait another 18 minutes for the train?) In the Synopsis these Wednesday times are shown against the reference "b".

According to S5200/19 the SM Warrnambool had "*to arrange for 3 or 4 second class cars, van and Guard, brake vehicle to be at each end to avoid reversing van*". This suggests that the inaugural train consisted of six-wheeled (or four-wheeled) stock. The Guard of the train was often the Warrnambool Leading Shunter.

The SMs Warrnambool and Dennington had to keep an accurate return of bookings in respect of these trains as the service was guaranteed by the Company. The "special Weekly Workmen's Tickets at 2/- each" for 6 return trips of three miles each way, seem remarkably cheap travelling, until it is remembered that the year 1919 was some years before inflation became a dirty word. The train was *guaranteed* in that if the revenue from the tickets sold did not equal or exceed the Railway's expenses, then the deficiency was met by the Nestlé Company.

To list the variations made in this apparently simple operation, I perused my collection of at least 21 Western and South Western District working time tables, all of which showed the times of the local trains and engines. The train was also mentioned in several Post-WW2 Holiday Time Tables. I also referred to Victorian Railways public time tables and Bradshaw's Guides to Victoria, not for the times of the Dennington trains, but for the times of other trains which the Dennington trains had to avoid.

For instance, by January 1925, the departure from Warrnambool of the morning down Hamilton mixed had been altered from 7.30 am to 7.35 am and as the Dennington local was still being attached to this train on Fridays, the departure time of the Dennington local on other days seems to have been altered to 7.35 am to avoid confusion.

Six months later, on 1 July 1925, the Warrnambool-Hamilton mixed train was

replaced by an AEC (four-wheeled) rail motor which left Warrnambool at 8.15 am on Mondays and Saturdays and 9.05 am on Fridays. The local Dennington vehicles could then run as a separate train, at 7.35am.

In March 1927, Weekly Notice No 10/27 announced that Illowa had been provided with switching instruments by which the Illowa electric staff station could be "switched in or out" at certain times *(with a train)*, and so the signalman's hours at Illowa could be reduced to one shift. During the time it was switched out, the (long) electric staff section was Warrnambool-Koroit. In March 1927, Illowa was switched in when the 6.10 am Up Port Fairy train passed Illowa at 7.09 am and switched out when the 2.55pm Up Port Fairy passed Illowa at 3.45 pm.

In consequence, the morning Dennington passenger train/light engine and the Saturday midday light engine/passenger train (both of which ran before 3.45pm) used a Warrnambool-Illowa *short section* electric staff; and the afternoon Dennington light engine/passenger train (which ran after 3.45pm) used a Warrnambool- Koroit *long section* staff. Before March 1927, the Wednesday afternoon Warrnambool-Dennington light engine had departed at 5.20pm (after the 5.00 pm AEC rail motor had cleared *Illowa* at 5.14pm) but after March 1927, the light engine could not leave Warrnambool until 5.25pm (after the AEC rail motor had cleared *Koroit* at 5.24pm.) The light engine is shown with reference "d"

On 16 January 1928, Special Train Notice S70/28 announced that the **one** AEC rail motor operating between Warrnambool and Hamilton was to be replaced by **two** AEC rail motors running between Coleraine and Warrnambool (via Hamilton and Koroit.) These two AECs crossed at Hawkesdale every day and, on one day a week, a goods train was at Hawkesdale at the same time. The 1928 Special Train Notice showed that there was still a 5pm rail motor departing from Warrnambool on Wednesdays and so the Wednesday afternoon light engine continued to leave at 5.25pm.

On 16 July 1931, one of the two rail motors was transferred elsewhere and the remaining rail motor ran only between Koroit and Hamilton As a result, the departure of the Down Dennington light engine on Wednesdays reverted to 5.0pm and the Up local Passenger train to 5.27pm. On Wednesdays from then on, the factory workers arrived in Warrnambool at the same time as on the other days. The time table of 6 June 1938 shows some more minor alterations. The afternoon light engine left Warrnambool 13 minutes earlier probably to allow more time for the attaching of loaded wagons from Dennington on to the passenger carriage(s). The frequent use of the afternoon Dennington light engine on the Down journey and the Passenger train on the Up journey to attach goods wagons perhaps started from this time although permission to attach wagons to the light engine (under the heading of "*running a train without a brake van in the rear*"

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The complete Warrnambool - Dennington Local Service which will
operate is shown hereunder :-
                    WARRNAMBOOL - DENNINGTON
                    LOCAL SERVICE (GUARANTEED)
              31             65                  42        110
           PASSENGER.     LIGHT                GOODS     PASSENGER.
                          ENGINE
DOWN          DAILY       DAILY     UP          DAILY.    DAILY.
              A.M.        P.M.                  A.M.      P.M.
Warrnambool dep 7.40      4.23   Dennington dep 8.30      4.55
Dennington  arr 7.47      4.30   Warrnambool arr 8.39     5. 5

WORKING TIME TABLE.   Page 63 column 31, Page 66 column 65 and
                      Page 76 column 110, schedules to be amended.

All concerned to note and so arrange.

                                      M. A. REMFRY,
D.3625/41.                            Gen.Supt.Transptn.,
1000.JP.                              per
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Figure 3: Did Pearl Harbour lead to Saturday afternoon work?

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                    VICTORIAN RAILWAYS
W.T.T. 1/42                              W.T.T. 1/42

                Office of General Superintendent,
                    Room 71.  Phone 1802.
                        2nd January, 1942.

    WARRNAMBOOL - DENNINGTON (Local Guaranteed Service)

        Commencing Saturday, 3rd January, 1942, and continuing
each Saturday thereafter until further notice, the Warrnambool-
Dennington (Local Guaranteed Service) will be altered to
run as under:-
DOWN -
4.23 p.m. (No.65) Warrnambool - Dennington Light Engine
Daily  altered to depart Warrnambool on Saturdays only at
11.50 a.m.

UP -
4.55 p.m. (No.110) Dennington - Warrnambool Passenger Daily
altered to depart Dennington on Saturdays only at 12.10 p.m.
                    --------------------

        The complete Warrnambool - Dennington  Local Service
which will then operate is shown hereunder:-
                    WARRNAMBOOL - DENNINGTON
                    LOCAL SERVICE (GUARANTEED)
```

DOWN		31 Passt Daily	33 Light Engine Sats.	65 Light Engine Sats. Exc.
		A.M.	A.M.	P.M.
Warrnambool	dep	7.40	11.50	4.23
Dennington	arr	7.47	11.57	4.30
UP		42 Goods Daily	62 Pass. Sats.	110 Pass. Sats. Exc.
		A.M.	P.M.	P.M.
Dennington	dep	8.30	12.10	4.55
Warrnambool	arr	~8.39	12.17	~5. 5

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Working Time Table:-  Page 63.    Under Column 33.

            Insert Heading & Light Engine Schedule
        (Saturdays).
            Page 66. Column 65.  Amend Heading to
        read Light Engine Sats Excepted.

            Page 73. Under Column 62.
        Insert Heading & Pass Schedule (Saturdays).
            Page 76. Column 110.  Amend Heading to
        read Passenger Sats. Excepted.

    All concerned to note and so arrange.

                        M. A. REMFRY,
                Genl. Supt. Transptn.,
                    per
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Figure 4. In the 1942 New Year, Saturday afternoon work was cancelled again

was listed in the General Appendix as far back as 1928. The passenger train. certainly included a "brake van" and so wagons could have been included on the "train" without a mention in the General Appendix. Tonnages allowed between Warrnambool and Dennington by otherwise light engines were listed for the first time in the working time table of 23 October 1933.

The working time table of 6 January 1941 shows that the afternoon light engine ran 24 minutes earlier than previously and so allowed still more time for shunting, including attaching wagons and testing brakes. Passengers might have appreciated an arrival at Warrnambool 20 minutes earlier than previously, but of more importance, the extra time ensured that the wagons from Dennington made a connection with No

80 Fast Goods due out of Warrnambool at 6.30pm.

Later in 1941, the news of the Pearl Harbour incident on 7 December was received in Australia on 8 December (local time) and resulted in the cancellation of most of Victoria's Christmas Holiday extra passenger trains. Perhaps the news also resulted in the Nestlé factory (for three weeks?), increasing its working days from 5½ to 6. The Saturday down light engine and the up passenger train were altered to run to the same times as on the other five days. A copy of the Special Train Notice for the commencement of this alteration has survived **(Figure 3)** but the date is missing. The alteration may have started on 13 December. Special Train Notice WTT 1/42 **(Figure 4)** shows that Saturday work returned to a normal half day from 3 January 1942.

Many Easter Holiday time tables including the issue for 1944 showed the times of the Dennington trains. The Easter 1944 timetable shows that shunting time at Dennington had been further increased to 43 minutes in the morning and to 39 minutes in the afternoon.

In my collection I have a Geelong to Port Fairy Train Controllers Graph which was actually used to record train movements on Thursday 10 May 1945. The end of the war in Europe (VE) was announced in UK on Tuesday 8 May but in Victoria it was already Wednesday 9 May. In consequence, the trains which would normally have run on a Wednesday were run a day later on Thursday 10 May 1945 and included on this graph are the details of the Dennington Local.

The afternoon light engine left Warrnambool at 4.10pm and arrived at Dennington at 4.17, and the "passenger train" (running as a mixed!) left Dennington at 4.58 and arrived at Warrnambool at 5.07. The time at Dennington was accounted for as 32 minutes shunting and 5 minutes testing brakes. Four goods wagons loaded with 89 tons of milk products, 2 wagons with 41 tons of milk products and 1 empty wagon for 9 tons, were included on the afternoon "mixed" and were later attached to No 80 Fast Goods train which left Warrnambool at 6.37pm. The ultimate destination of the 1945 milk products (milk powder?) may have been

received in UK in time to put into my tea in some RAF staging camp where I was waiting for a troop ship to take me home.

The need for close cooperation

The whole operation shows that there was close cooperation between the Factory, the Stationmaster Warrnambool, the District Superintendent and the Train Controller in Geelong and the General Superintendent in Melbourne.

The cessation of local train service

In the 1950s the Chief Traffic Manager had been showing concern at the decline in the number of passengers travelling on the Dennington local trains. Other problems had included delays to through trains while the local train oc-cupied the main line while shunting goods vehicles. A suggestion was made that an intermediate electric staff instrument placed at Dennington would enable the shunting to take place clear of the main line. The further question was raised–should the intermediate instrument to be on the short electric staff section (Warrnambool-Illowa) or on the long section (Warrnambool-Koroit)?

Maybe these discussions drew the attention of the railway and the Company to the train's future and prompted the cancellation which took place on 16 August 1957.

When Illowa was eventually closed as an electric staff station on 17 August 1965, the switching instrument and the previous short section instruments were withdrawn. The long electric staff section (Warrnambool-Koroit) remained with an intermediate instrument at Dennington. The Port Fairy line was closed beyond Dennington on 2[nd] November 1977.

VICTORIAN RAILWAYS
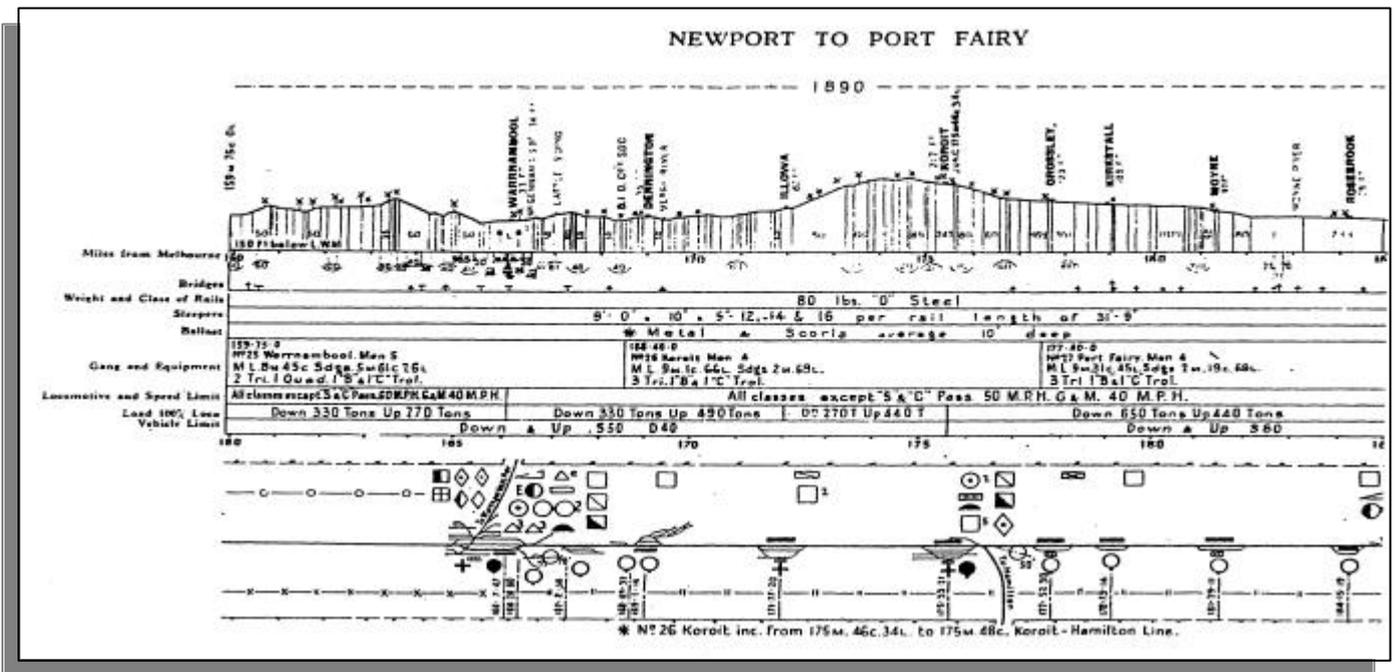
Figure 5: The Warrnambool-Dennington track and its facilities

Table 1: Warrnambool–Dennington: Synopsis of Time Tables of Passenger Trains
1919-1957

Dates of Time Tables		Down Pass Daily	Down LE Sats	Down LE MTTF	Down LE Weds		Up LE Daily	Up Pass Sats	Up Pass MTTF	Up Pass Weds
1-Sep-1919 to	Wbl	7.30a	11.45	4.55	5.20b	Den	7.50	12.10	5.22	5.40
6-Jun-1922	Den	7.38	11.55	5.05	5.30	Wbl	8.00	12.18	5.30	5.48
1-Dec-1924 to	Wbl	7.35	11.50	5.00	5.20	Den	7.50	12.15	5.20	5.40
7-Dec-1925	Den	7.42	11.59	5.09	5.29	Wbl	7.59	12.22	5.29	5.48
17-Oct-1927 to	Wbl	7.35c	11.50	5.00	5.25d	Den	7.50	12.15	5.27d	5.40
21-Oct-1929	Den	7.42	11.59	5.09	5.34	Wbl	7.59	12.22	5.34	5.48
		Daily	**SO**	**SX**			**Daily**	**SO**	**SX**	
7-Nov-1932 to	Wbl	7.35e	11.50	5.00		Den	7.50	12.15	5.27f	
1-Oct-1934	Den	7.42	11.59	5.09		Wbl	7.59	12.22	5.34	
23-Nov-1936	Wbl	7.35	11.50	5.00		Den	7.50	12.15 1	5.30	
	Den	7.42	11.59	5.09		Wbl	7.59	2.22	5.37	
6-Jun-1938	Wbl	7.30	11.50	4.57		Den	7.50	12.10	5.33	
	Den	7.37	11.57	4.54		Wbl	7.59	12.17	5.40	
6-Jan-1941 to	Wbl	7.40	11.50	4.23		Den	8.30g	12.10	4.50	
10-May-1945	Den	7.47g	11.57	4.30		Wbl	8.39	12.17	5.00	
		SX					**SX**			
WTT 31/46	Wbl	7.30	hj	4.58		Den	8.20	hj	5.33g	
(9-Apr-1946)	Den	7.37		5.05g		Wbl	8.29		5.43	
Easter 1947	Wbl	7.10k		4.38k		Den	8.00k		5.13k	
	Den	7.17		4.45		Wbl	8.09		5.23	
Easter 48 to	Wbl	7.40		4.20		Den	8.30		4.55	
End-16/8/57	Den	7.47		4.27		Wbl	8.39		5.05	

Wbl represents Warrnambool and *Den* Dennington, *Pass* for Passenger train, *LE* Light Engine (i.e. an engine without a load), *MTTF* for Mondays Tuesdays Thursdays and Fridays, *Weds & Sats* for Wednesdays and Saturdays.

a   No 13 Up Goods, if run, was to wait at Illowa. On Fridays the local was to be attached to 7.30 am Hamilton.

b   On Wednesdays the local Light Engine was to follow 5pm Hamilton Mixed.

c   On 1 June 1925, the Hamilton Mixed train service was superseded by an AEC Rail Motor. The 7.35 am Hamilton Mixed was replaced by an AEC leaving Warrnambool at 8.15am on Mondays and Saturdays & 9.05 on Fridays The local continued to leave at 7.35 am.

d   In March 1927, Illowa was provided with switching instruments by which it could be switched in and out as an electric staff station. In the working time table of 17 October 1927, it was only open as a staff station between 7.09 am and 12.5 pm. In consequence, the Wednesday afternoon Light Engine could not leave Warrnambool until the 5pm Hamilton AEC had cleared the long section to Koroit at 5.24, instead of as previously, the short section to Illowa at 5.14pm.

e   On 16 July 1931, the two Rail Motors operating between Warrnambool and Coleraine since 16 January 1928 were replaced by one Rail Motor which ran only between Koroit and Hamilton.

f   Also from 16 July 1931, the local Light Engine Wednesdays resumed the MTTF schedule.

g   The extra time at Dennington 43 minutes in the morning and 28 minutes in the afternoon may have been for shunting. The General Appendices show that "Trains on the running line without a brake van in the rear" had been permitted between Warrnambool and Dennington since 1928. The GA presumably referred to the Dennington light engine and Nestlé loading.

h   From 6/3/1946, Illowa switched in and out *without* a train.

j   Local trains no longer ran on Saturdays after 9/4/1946.

k   Local trains ran 20 minutes later for a short period of time around 1947 for an unknown reason.

Table 2 Time table alterations over 38 years and
the number of work hours involved each week

Dates of Time Tables	Local Train starts Sep 1919		44 Hour Week Starts 9 Apr 1945		Saturday Work Ceases 9 Apr 46	40 Hour Week Starts 27 Sep 48
	Saturday Excepted	Saturday Only	Saturday Excepted	Saturday Only	Saturday Excepted	Saturday Excepted
1. Arrive Dennington am	7.38am	7.38am	7.47am	7.47am	7.37am	7.47am
2. Leave Dennington pm	5.22pm		4.55pm		5.33pm	5.55pm
3. Leave Dennington Sats		12.10pm		12.10pm		
4. Time on site	9h 44m	4h 32m	9h 08m	4h 23m	9h 56m	9h 08m
5. Walking daily	0h 18m	0h 18m	0h 18m	0h 18m	0h 18m	0h 18m
6. Lunch break Sats Exc	0h 45m	nil	0h 45m	nil	0h 45m	0h 45m
7. Work time	8h 41m	nil	8h 05m	1	5	5
8. Number of days	5	1	5	1	5	1
9. Work time	43h 25m	4h 14m	40h 25m	4h 05m	44h 25m	40h 25m
10. Add extra time Weds	0h 15m		nil		nil	nil
11. Add Saturday time	4h 14m		4h 05m		nil	nil
12. Work time for week	47h 54m		44h 30m		44h 25m	40h 25m

Line 4– Time on Site = Line 2 or 3 minus Line 1.
Line 7– Work Time = Line 4 minus Lines 5 and 6 where applicable.
Line 9– Work Time Week Days, to which add Wednesday and Saturday Time as applicable.
Line 12– Total Work Time for Week. In each case close to the 48 / 44 / 40 Hours.

This table shows at four different times in the life of the local train, the close relation between the Dennington train's arrival and departure (as shown in various working time tables) and the hour of work at the factory. It is interesting to note that changes to the Dennington trains before 1944 were made mainly with a view to:

1. avoiding the timings of other trains, or
2. adjusting timings to new or altered safeworking arrangements, or,
3. granting extra time for shunting by the light engine.

After 1944, the main changes were made as a result of:

1. the reduction of working hours from 48 to 44 (in 1944?),
2. the cessation of Saturday work (in 1946?) and,
3. the further reduction in hours from 44 to 40 (in 1948?).

There is also a curious alteration (in 1947), so far unexplained, when the timings of all local trains and light engines were advanced by 20 minutes In other words, the departure time of the morning Dennington passenger train, which had been between 7.30 am and 7.40 am since 1919, was, for a short time, shown as 7.10 am. It has been suggested that this somehow avoided peak electricity usage during electricity rationing about that time.

38

GEELONG–PORT FAIRY.

(Full Passenger Service.)

DOWN.			27	35 Pass. M.W.F. Sat.	69 Pass. Tu. Th.	7573 Pass. Sats.	29 Through Goods Daily.	71 Light Engine Sats Ex.		
			p.m.	Am	p.m.	pm	Am	pm		
GEELONG	...	Dep.	...	9.35	6 30	7.55	5.30	...		
South Geelong	...	,,	...	9.40	6 35	8.0	5.40	...		
Marshall	...	,,	...	✗	§	▸		...		
Grovedale	...	,,	...	✗	§	▸		...		
Pettavel	...	,,	...	9.59	§	▸	6.15 –18	...		
Moriac	...	Arr.		...	...	–60	–26	...		
,,	...	Dep.	From Cressy	10.5	7 2	8.29	6.25	...		
Buckley	...	,,		10.17	§	▸		...		
Winchelsea	...	Arr.		–78 Sat	...		–19			
,,	...	Dep.		10.24	7 21	8.48	6.50 –21	...		
Armytage	...	Arr.		...	...			...		
,,	...	Dep.		10.35	7 32§	▸		...		
Birregurra	...	,,	Car Gds.	10.46	7 43	9.11	7.18	...		
Warncourt	...	,,	Mon.	10.52	§	▸		...		
Irrewarra	...	Arr.		–56	...			...		
,,	...	Dep.	6 3	11.0	7 58 –54	9.26	7.36	...		
COLAC	...	Arr.	6 15	11.12	8 6	9.75	7.50	...		
,,	...	Dep.	...	11.22	8 14	9.47	8.10	...		
Larpent	...	,,	...	11.30	§	▸		...		
Pirron Yallock	...	,,	...	11.37	§	▸	8.29	...		
Stonyford	...	,,	...	11.46	§	▸		...		
Pomborneit	...	,,	...	11.54	8 44§	10.13▸	8.44 9.0 –38	...		
Weerite	...	,,	...	12.2 pm	§	▸		...		
CAMPERDOWN	Arr.		...	12.13	9 4 –80	10.30	9.20	...		
,,	...	Dep.	...	12.24	9 24	10.50	10.20	11.0	WTT 23/ 16.2	
Boorcan	...	,,	...	12.40	9 35	11.2		...		
Terang	...	Arr.	...	12.44 –60	9 45	11.14		...		
,,	...	Dep.	...	12.53	9 48	11.30	10.50	11.21	Pilot WED. FRI. (TEMP. 1ST)	
Garvoc	...	,,	...	1.4	§	▸	–54	...		
Panmure	...	Arr.	...	...	...			...		
,,	...	Dep.	...	1.12	10 8	11.44	11.14	11.44		
Cudgee	...	,,	...	1.18	§	▸		...		
						Sun. Am		Am		
Allansford	...	,,	...	1.24	10 21	12.1	11.44 11.58	11.52		
WARRNAMBOOL	Arr.		...	1.45	10 40	12.30	12.30 12.10PM	12.10PM		
				Mixed Mon. Wed. Fri.	–31 Pass. Daily a.m.	33 L.E. Sats a.m.	65 L.E. Sat. exc. a.m.			
				pm			–90			
,,	...	Dep.	...	2.15	7 40	11 50	4 20	...	10.30 (Seen	
Dennington	...	,,	...	▸	7 47	11 57	4 27	...	...	
Illowa	...	,,	...	2.33		...	...	...	10.4X/	
Koroit	...	Arr.	...	2.45	...	...	...	...	11.15	
,,	...	Dep.	...	3.10 ● –90	...	...	...	...	...	
Crossley	...	,,	...	▸	...	...	...	...	...	
Kirkstall	...	,,	...	▸	...	...	...	...	...	
Moyne	...	,,	...	▸	...	...	...	...	...	
Rosebrook	...	,,	...	▸	...	...	...	...	...	
PORT FAIRY	...	Arr.	...	3.55	...	...	...	...	...	

Note : Tender 1st running is authorised from Warrnambool to Koroit in the "down" direction and in daylight only.

● No. 35 may depart Koroit 2.44pm.   N° 90 may depart Koroit 3.3pm Illowa 3.21

Figure 6A. A page from WTT 180/43, the Working Time Table of 8[th] September 1943, showing how the Dennington trains fitted into the overall service

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PORT FAIRY-GEELONG-MELBOURNE.
(Full Passenger Service.)

UP.		42 L.E. Daily	62 Pass. Sat.	38 Pass. Tu., Th., Sat.	56 Car-Gds. Wed.	90 Mixed M.,W.,F.	110 Pass. Sat. exc.		
		a.m.	p.m.	a.m.	a.m.		p.m.		
PORT FAIRY	Dep.	...	...	...	...		...		...
Rosebrook	,,	...	...	...	...		...		...
Moyne	,,	...	...	...	...		...		...
Kirkstall	,,	...	...	...	...		...		...
Crossley	,,	...	...	...	...		...		...
KOROIT	Arr.	...	...	...	...		...		...
"	Dep.	...	...	...	...		...		...
Illowa	,,	...	...	...	...		...		...
Dennington	,,	8 30	12 10	...	...		4 55		...
WARRNAMBOOL	Arr.	8 39	12 17	...	...		5 5		...
"	Dep.	...	...	7 15	...		...		
Allansford	,,	...	...	7 27	...		...		
Culgee	,,	...	...	§	...		...		
Panmure	,,	...	...	7 43	...		...		
Garvoc	,,	...	...	7 53§	...		...		
Terang	Arr.	...	...	... —9	...		...		
"	Dep.	...	...	8 5	...		...		
Boorcan	,,	...	...	8 14	...		...		
CAMPERDOWN	Arr.	...	...	8 26	...		...		
"	Dep.	...	...	8 39	...		...		
Weerite	,,	...	...	§	...		...		
Pomborneit	,,	...	....	8 53	...		...		
Stoneyford	,,	...	...	§	...		...		
Pirron Yallock	,,	...	...	9 7	...		...		
Larpent	,,	...	...	§	...		...		
COLAC	Arr.	...	...	9 23	...		...		
"	Dep.	...	...	9 28	10 35		...		
Irrewarra	Arr.	...	...	...	10 47		...		
					—35				
"	Dep.	...	...	9 35	11 8		...		
Warncourt	,,	...	...	§	...		...		
Birregurra	Arr.	...	...	9 48	...		...		
"	Dep.	...	...	9 50			...		
Armytage	Arr.	...	...	...			...		
"	Dep.	...	...	§			...		
Winchelsea	Arr.	...	...	...	To Ballarat via Cressy		...		
"	Dep.	...	...	10 11			...		
Buckley	,,	...	...	§			...		
Moriac	Arr.	...	...	...			...		
"	Dep.	...	...	10 29			...		
Pettavel	,,	...	...	§			...		
Grovedale	,,	...	...	§	...		...		
Marshall	,,	...	...	§	...		...		
South Geelong	Arr.	...	...	...	...		...		
"	Dep.	...	....	10 55●	...		...		
GEELONG	Arr.	...	...	11 5	...		...		
				Daily					
"	Dep.	...	....	11 15	...		...		

● No. 38 ⟨⟩ depart North Geelong at 10 50 a.m.

**Figure 6B. From WTT 180/43, showing the Up services,
including the Dennington locals**

Transit Southwest services in Warrnambool

Still in Warrnambool, we move forward, to see how the milk factory workers and other citizens of that town get about these days. **STEVEN HABY** *is our timetable guide.*

W arrnambool, population about 26,000, located on the southwest coast of Victoria, is served by West Coast Railway passenger trains from Melbourne, and connecting V/Line coach services to various district points.

Urban buses, operated by South Western Roadways under contract to the Public Transport Corporation, trade as 'Transit Southwest'. This is typical of Victorian regional bus services. Buses have a distinctive blue, green and white livery.

Eight routes are operated:
1 City - West;
2 City - North and Brierly;
3 City - Northeast and Dennington;
4 City - Gateway Plaza;
5 City - South and Merrivale;
6 City -. East;

7 City - Sherwood Park and Deakin University;
8 an 'interurban' service to Port Fairy.

The TT illustrated here is undated but current. Unfortunately it does not contain a route map or service information like the previous edition, but route descriptions are provided.

Frequencies on most routes are typical of regional town buses - hourly with a limited Saturday morning service. The first bus on most routes seems to be tailored rather more to shoppers than commuters, although most of the last outbound buses leave after 1700. The service on Route 7 is rather poor, considering the potential of the University for generating traffic. Interestingly, Routes 1 and 5 are through routed, providing a convenient cross town service.

The Port Fairy service is of particular interest, with several runs shown as being operated by V/Line coaches, which connect with trains to/from Melbourne. There is potential for commuter traffic, with times suitable to the office worker. The old 'picture bus' tradition lives on with a service *ex*-Port Fairy at 1845 on Saturdays, departing from Warrnambool at 0100!

YOUR GUIDE TO TRANSIT SOUTHWEST

ROUTE 5 - SOUTH & MERRIVALE

WEEKDAYS TO CITY / WEEKDAYS FROM CITY

GRANTER ST & McMEEKIN RD	PERTOBE RD & STANLEY ST	CITY (KOROIT ST)	CITY (KOROIT ST)	PERTOBE RD & STANLEY ST	GRANTER ST & McMEEKIN RD	CONNECTS TO ROUTE
8.35*	8.43	8.47	9.30	9.34	9.42	1
9.40	9.49	9.53	10.30	10.34	10.42	1
10.40	10.49	10.53	11.30	11.34	11.42	1
11.40	11.49	11.53	12.30	12.34	12.42	1
12.40	12.49	12.53	1.30	1.34	1.42	1
1.40	1.49	1.53	2.30	2.34	2.42	1
2.40	2.49	2.53	3.30	3.34	3.42	1
3.50	3.59	4.03	4.30	4.34	4.42	1
5.40	5.49	5.53	5.30	5.34	5.42	1

* - DURING SEMESTER

SATURDAYS TO CITY / SATURDAYS FROM CITY

GRANTER ST & McMEEKIN RD	PERTOBE RD & STANLEY ST	CITY (KOROIT ST)	CITY (KOROIT ST)	PERTOBE RD & STANLEY ST	GRANTER ST & McMEEKIN RD
8.47	8.55	8.59	9.30	9.34	9.42
9.42	-	9.52	-	-	-
11.42	-	11.52	11.30	11.34	11.42
-	-	-	12.30	12.34	12.42

ROUTE 6 - EAST

WEEKDAYS TO CITY / WEEKDAYS FROM CITY

JUKES ST	FLETCHER JONES (RAGLAN PDE)	CITY (KOROIT ST)	CITY (KOROIT ST)	LYNDOCH HOSTEL	JUKES ST
8.30*	-	8.48	9.00	9.09	9.12
9.12	9.14	9.20	10.00	10.09	10.12
10.12	10.14	10.20	11.00	11.09	11.12
11.12	11.14	11.20	12.00	12.09	12.12
12.12	12.14	12.20	1.00	1.09	1.12
1.12	1.14	1.20	2.00	2.09	2.12
2.12	2.14	2.20	3.00	3.09	3.12
3.12	3.14	3.20	4.15	4.24	4.27
4.27	4.29	4.35	5.15	5.24	5.27
5.27	5.29	5.35			

* - DURING SEMESTER

SATURDAYS TO CITY / SATURDAYS FROM CITY

JUKES ST	FLETCHER JONES (RAGLAN PDE)	CITY (KOROIT ST)	CITY (KOROIT ST)	LYNDOCH HOSTEL	JUKES ST
9.12	9.14	9.20	9.00	9.09	9.12
10.42	10.44	10.50	10.30	10.39	10.42
12.12	12.14	12.20	12.00	12.09	12.12

ROUTE 7 - SHERWOOD PARK (DEAKIN UNIVERSITY)

WEEKDAYS TO CITY / WEEKDAYS FROM CITY

DEAKIN UNIVERSITY	GILLIN PARK (PRINCES HWY)	CITY (KOROIT ST)	CITY (KOROIT ST)	GATEWAY PLAZA (K-MART)	DEAKIN UNIVERSITY
9.05	9.10	9.20	8.35T	8.50	8.55
10.05	10.10	10.20	9.40	9.50	9.55
11.05	11.10	11.20	10.40	10.50	10.55
12.05	12.10	12.20	11.40	11.50	11.55
1.05	1.10	1.20	12.40	12.50	12.55
2.05	2.10	2.20	1.40	1.50	1.55
3.05	3.10	3.20	2.40	2.50	2.55
5.05	5.10	5.20	4.40	4.50	4.55
6.05	6.10	6.20	5.40	5.50	5.55

T - FROM CARAMUT RD VIA RAGLAN PARADE TO DEAKIN .

FOR SATURDAY SERVICES SEE ROUTE 4 (GATEWAY PLAZA)

RAILWAY STATION TO CITY

RAILWAY STATION	CITY
12.00	12.05

PORT FAIRY VIA KOROIT (INCLUDING V/LINE COACH SERVICES)

WEEKDAYS TO CITY / WEEKDAYS FROM CITY

PORT FAIRY	KOROIT	CITY (KOROIT ST)	CITY (KOROIT ST)	KOROIT	PORT FAIRY
5.55R	-	6.25T V/L	8.50-20	9.00	9.20
6.40	6.55	7.20	12.15T R	-	12.50 V/L
7.50	8.10	8.35	3.00	3.25	-
10.00	10.20	10.40	4.20T R	4.35	5.00 V/L
-	11.20	11.40T	5.10	5.30	5.50
11.30R	-	12.05T V/L	-	-	-
4.55R	-	5.25T V/L	5.40	6.15	6.35
-	-	-	9.25T R	-	9.50 V/L*
-	-	-	9.30T R	-	9.55 V/L†

SATURDAYS TO CITY / SATURDAYS FROM CITY

PORT FAIRY	KOROIT	CITY (KOROIT ST)	CITY (KOROIT ST)	KOROIT	PORT FAIRY
6.22R	-	6.50T V/L	12.15T R	12.30	12.45 V/L
8.00	8.20	8.40	12.30	12.55	1.10
11.25R	-	12.05R V/L	9.40T R	-	10.03 V/L
6.45	7.00	7.20	-	-	-

SUNDAYS TO CITY / SUNDAYS FROM CITY

PORT FAIRY	KOROIT	CITY (KOROIT ST)	CITY (KOROIT ST)	KOROIT	PORT FAIRY
4.22	-	4.55T V/L	1.00 PM	1.25	1.50 V/L
-	-	-	10.15T R	-	10.35 V/L

T - CONNECTS WITH TRAIN TO/FROM MELBOURNE
R - SEAT RESERVATION REQUIRED ON THIS SERVICE
V/L - V/LINE COACHES ARRIVE & DEPART AT WARRNAMBOOL STATION
* - MONDAY-THURSDAY ONLY　　† - FRIDAYS ONLY

The bus waiting paradox

Catch the Route 400 bus- if you can. By **GEOFF LAMBERT**

I patronise a rather peculiar bus service, the 400 from Bondi Junction to Burwood, which I catch at the University of New South Wales. The Transit Authority has decided that buses will run *on the average*, every 10 minutes throughout the day, but it has failed to specify an exact timetable. So, the Despatcher spins a wheel on a dial to determine how soon the next bus will leave Bondi Jct. The dial is so graduated such that the intervals between bus departures are completely random, but the long-term average interval is exactly a 10 minute one. If I walk out of the University at a time of my choosing to catch the bus, on the average, how long will have to wait for the next bus? Answer next month.

Great Britain Bus Timetable

Review for "The Times" by **DUNCAN MACAUSLAN**

In Australia we have seen two private attempts at providing a comprehensive all Australia public transport timetable fail this year for lack of public support as well as the enormity of the task. However in the Great Britain a bus company, Southern Vectis, has embarked on a similar venture with some success.

The Great Britain Bus Timetable (GBBTT) is now in its eighth edition and seems to be gaining acceptance as the definitive reference bus timetable for travel professionals and bus travellers. This review is of the seventh edition however Southern Vectis's web site (see illustration) has announced the new features in edition eight.

Edition 7 is quite a sizeable volume with more pages than I'm prepared to count, it's unpaginated and many, many timetables– again I've not counted them and there's no absolute timetable numbering system. But neither of these matter because indexing is excellent using table numbers only.

The title "*Great Britain*" is technically incorrect as the timetable includes islands off the coast of Great Britain– including the Isle of Wight, Southern Vectis's homebase. It does not include Northern Ireland or Eire thus ruling out use of United Kingdom and British Isles in the title.

The timetable has three indexes. The main index contains in 77 pages over 9000 locations– no I didn't count them, it's only an estimate. For each location the relevant table numbers are shown.

The second index is for bus– rail links, previously published separately by Barry S Doe. This details 300 locations where there is a considerable distance between a railway station and the town centre.

Finally, and of most benefit to tourists, is a list of National Trust locations.

As mentioned the timetable is unpaginated. The only reference to a timetable is its reference number based on a regional code and a table number within the region. Region 'A' is appropriately the Isle of Wight and progress north to 'T' covering the Scottish Highlands and the Western Isles. Gaps are left to enable additions.

Each edition comes with a fold out map which is an excellent idea– but the print is very small and in densely served areas impossible to read – in some areas not all services are shown. This is apparently rectified in the eighth edition where areas such as Birmingham and the Edinburgh–Glasgow corridor get separate blow-ups. The map shows the region codes again assisting to find a service.

The tables themselves are in a consistent style throughout and to regular readers of a British timetable will look familiar because they follow the style used by most larger organisations.

Services included must operate 6 days a week and between two distinct localities. This precludes most city operators services as well as school and works services, however the index does give phone numbers for local services. All tables show the operator, service numbers, contact phones, timing points for major places on the route and a list of other places served. Given the problems of getting detailed information there are usually footnotes regarding route variations and operating days.

Admittedly I'm a regular timetable user so it's no surprise that I found the timetable easy to use. I tried finding several small villages I've been to and in all cases found the timetables for the services easily. I did find some cases around Edinburgh where only one operator is shown even though I'm aware that there are two competing.

It's a bit more difficult to find long distance connections but then I've yet to see a paper timetable that can successfully achieve this (the British Railways timetable on the WWW does this admirably).

At £12.00 an issue, around $28.00 it is expensive. The target market is not the average user, rather information points such as Tourist Information Centres, Bus and Railway Stations around Britain. Support is provided by other bus groups such as Stagecoach, FirstBus, Go-Ahead and Cowie. This is where the GBBTT differs from the Australian ef-

forts, it is not for the bus traveller and thus not readily available in bookshops. Thus a low price and convenient pocket size are not important. Perhaps this should be the target if a third Australian timetable is being contemplated.

Overall a very good publication. For a timetable collector at least one copy should be in your collection as a classic timetable.
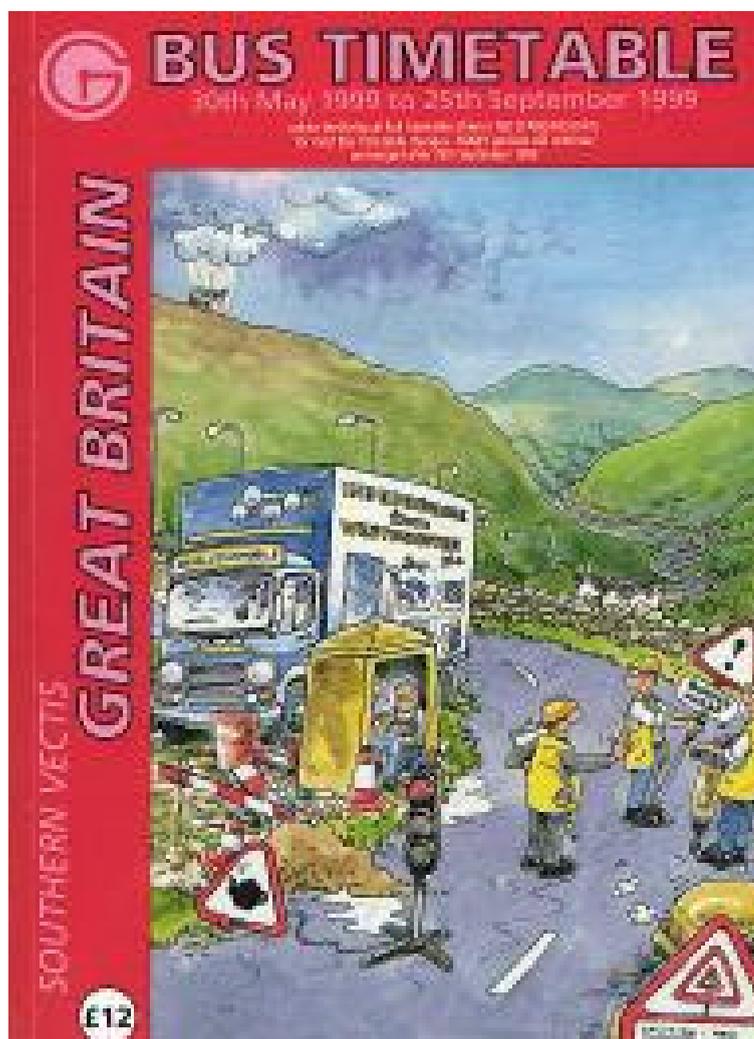
Letter to the Editor

<div align="right">

Ian Hammond

Editor, Transit Australia

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Dear Graham,

You have done a great job with The Times and I am sorry you have had to give it up. The changes were strikingly effective. But work must come first!

Further to John Evans letter re the acting superintendents on the SAR in 1976, it is possible that a further reason was that in 1976 the old SAR was being split up into AN and State Transport Authority. Were they in a 'fort-holding ' situation while the new organisation structures were being established? The whole system was in a state of flux. That could also explain why all three were listed. Perhaps someone can confirm that.

Ian Hammond

Graphic Insight

By CHRIS BROWNBILL

This month, Graphic Insight starts a series of articles which attempt to answer the question: "when exactly IS peak hour"? We use the technique of a 60-minute rolling total number of services passing a particular point. This is calculated by summing up all the services in the 30 minutes prior and the 30 minutes after each minute. This technique gives a reliable and stable indicator of the exact time of the busiest minute of the day.

The data used in the graph below is taken from the current Melbourne suburban "Hillside Trains" Belgrave and Lilydale lines train timetable dated 4th July 1999. The two graph lines illustrate respectively the 60-minute rolling total number of trains arriving at Flinders Street station from the Lilydale, Belgrave and Alamein lines, and the 60-minute rolling total number of trains departing Flinders Street for those lines on Mondays to Fridays.

Not surprisingly, the graph highlights the peak hours quite markedly, with a morning and an evening peak in each direction. Also, not surprisingly, the morning peak for Up trains is higher than the morning peak for Down trains, and the evening peak for Down trains is higher than the evening peak for Up trains.

The morning Up direction peak of 23 trains per hour, which is reached at 08:09, is marginally higher than the evening Down peak of 22 trains per hour, which occurs on a number of occasions between 17:00 and 17:17.

It is interesting to note the differing shapes of the morning and evening peaks. The morning peak has a relatively gradual down–slide, whereas the evening peak subsides very steeply. There is a similar pattern in evidence for the build up to the peaks–in the morning it is very rapid (at least in the Up direction), whereas in the afternoon it is relatively gradual.

Finally, it seems that in the evening, the increase in peak and counter-peak direction flows seem to occur at the same times, however in the morning, the counter-peak flow (Down) trails off to the off-peak level much sooner than it does in the Up direction.

Upcoming Graphic Insights will further analyse peak hour flows as measured by 60-minute rolling totals.