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Railway timetables of New Zealand
A catalogue of Public and Working timetables from 1870 to 2000.

The Times

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Disclaimer Opinions expressed in The Times are not necessarily those of the Association or its members. We welcome a broad range of views on timetabling matters.

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A very early timetable

Last year's visit of the Dead Sea Scrolls to Sydney awakened interest in some of the more obscure material about daily life contained in them. One such piece of information lead to renewed digging near the mouth of the Nile River, with surprising results , as **ABDUL ABULBUL BAZAAR** *reports.*

Archaeologists working in the Nile delta in a year of unusually low flow have uncovered evidence of what is believed to be one of the world's earliest public transport timetables, if not the very first.

It is a timetable for a daily barge service plying between the 'ports' of Abu Simel and the ancient city of Pulinyaleg, formerly right at the mouth of the Nile, but now nearly 100 km upstream from it.

Since the days of the discovery of the famous Rosetta Stone, it has been a relatively easy matter for archaeologists to translate the texts of old Egyptian documents, so the identity of the objects found was readily apparent. Inscribed with a mixture of Egyptian hieroglyphics and Sumerian cuneiform characters, the timetable is on 5 relatively large stone tablets, the first of which bears the inscription *To operate from and after 1 April 1200 B.C and until further notice.* The fact of dual language entries (long before CN and CPR thought of it) suggests the service catered for international travellers.

1. *Nile Barges attempts to capture the high end of the market. The people pictured were popular performers at the open-air theatres of the day in Egypt and Rome. The glyphs at the bottom say "Nile Barges Time Table" and "Mondays to Fridays only" The editor has replaced the original glyphs at the top with their English equivalent*

Marketing ploys

Even in 1200 BC, it seems that barges did not have a good image. The cover (if it can be called that) therefore went to great lengths to promote the concept of svelte luxury on board, using well-known identities of the time to entice people aboard. The image, which about 3150 years later was later adapted as a symbol of Egypto-Roman decadence appears as our Fig. 1.

Family fares

The fares section is interesting too, although the overall level of fares seems high, even when inflation is taken into account. Single fare per person was 2 oxen, or the equivalent in sheep. In the fine print ('fine engraving'?) on the last tablet is the injunction: *Upstream passengers are expected to help the slaves row the boat. A 20% surcharge will be imposed on those who decline this opportunity.* It is not clear, however, given that the one-way fare was 2 oxen, how this surcharge was extracted. Perhaps the operators needed the wisdom of Solomon, who is said to have solved a similar problem at about the same time.

But, in an early sign of marketing, special discounts were offered for families *Two parents and 4 children travel for the same fare as two parents and three children, provided the 4th child is offered up as a sacrifice to Ra on the altar upon entering the barge.*

2. *The actual timetable, which appeared on Tablet 3 of the 5. The other pages (or tablets) were devoted to advertisements and rules. The table shows a downstream service leaving Abu Simel at 9.54 in the morning and arriving at Pulinyerleg at 16.55, although it doesn't specify whether this is the same day. The upstream service is slower, leaving at 0500 and not arriving until 2015. The table is the first we have seen which adopts the later common practice of a centre column containing the place names, with the left-hand column reading* ***'Down'*** *('downstream' of course) and the right-hand column reading* ***'Up'****. Timetable analysts have been much excited by this finding, believing it to be the ultimate source of the terms 'Down' and 'Up', the mystery of which has baffled them for years.*

Marginalia and advertisements.

Although the time tables of this 'timetable' take up only 20% of the space (See our Fig 2), the rest of the timetable is devoted to a collection of fascinating material giving a vivid picture of life along the Nile. There are advertisements for Nefertiti's patent mummy preserving oil, the Nile Delta Boatel (*just toot-and-come-in*), and a range of stonemason ads promising *Next day delivery of 50-tonne stone blocks to your pyramid.*

One particularly interesting item is the Nile Barge Company's own exhortations for passengers to be on board 5 minutes before scheduled departure (shades of Sydney Ferries!) in which they make use of an unusual graphic of a harried commuter whom they dub *Rushing Ramses*. This is so obviously the source for the Long Island Railroad's *Dashing Dan* character. We reproduce both, so you can make your own judgment.

3. *'Rushing Ramses' (Nile Barges, c 1200BC) and 'Dashing Dan' (LIRR public timetable c. 1950). Can you see the similarity?*

Short-lived service

Unfortunately, the service does not appear to have lasted very long, although this can not be deduced from the timetables themselves. However, there IS corroborating evidence from papyrus documents found with the Dead Sea Scrolls, indicating that the service came to grief during a special excursion. This was put on by Nile Barges for the AGM of a local enthusiast society the Answan Association of Timetable Collectors (AATC). As luck would have it, the President turned up at the AGM with a grab-box of over 100 copies of the current timetable. This overloaded the barge, which capsized in mid-stream precipitating the NAOTC members and all of the timetables to the bottom of the Nile. The Director of Ancient Antiquities (who is one himself), Mr Gerry Attrick Methuselah, believes the recently un-earthed timetable may be one of the copies lost overboard from this disastrous AGM.

Railway timetables of New Zealand

As **GEOFF LAMBERT** *points out, hens' teeth are a glut on the market compared with New Zealand train timetables. At least it seems that way. This is the latest in a series of check–lists of Australasian timetables. Contributions also from* **VICTOR ISAACS.**

By June 1941, New Zealand Railways had issued at least 389 public timetables, far more than we have previously listed for any Australian railway system. But, The Times has seen only 5 of them and knows of no others in the possession of AATTC members.

Then how do we know how many timetables were issued? Because the New Zealand Government Railways, suffering from a long affliction of obsessive-compulsive disorder, numbered them all, that's why. Beginning at some unknown time and continuing with issues that must have been at least monthly for a long time, every public timetable received a sequential number. By 1941, at which time frequency of issue had dropped to about twice a year, NZR had reached 389. Before number 1, who knows how many?

This numbering system seems to have continued up till 1950, when it re-commenced with what NZR described on its timetables covers as a *new series*. From then, until at least 1971, timetables were probably issued slightly less than yearly because, in 1972, the issue number had crept up to 18. Numbering of public timetables seems to have stopped some time in the 1970s or 1980s.

If all of this sounds a little uncertain, it is because we here in Australia know so little about NZR timetables and very few seem to have made their way across the Tasman. There also seems to have been for a long time, an air of secrecy about the issuing of 'railway paper' in New Zealand and even the enthusiast societies seem a trifle reluctant to reveal details of this sort of thing– that has been the Editor's experience anyway.

For a small place, New Zealand had a lot of railways. They seem to have been well-used and the timetables for them were not only prolific, but fat and packed full of information– 300 pages was the norm for public timetables even in the Depression era.

NZR issued both system-wide, 'Island-specific' and local area timetables. The split between issuing a system timetable and one per island occurred with the 1950 re-sequencing. It is interesting that, in the early days of timetables, the *South Island* was labelled the *Middle Island*, and *South* was reserved for Stewart Island. Suburban timetables were issued for services in (at least) Auckland, Wellington, Christchurch and Dunedin. In the 1980s, the Rangitikei Railfans Group issued its own version of the NZR public timetable, containing extra information such as the schedules of the holiday expresses and the intermediate times at non-passenger stations. Although endorsed *not for sale to the General Public* these timetables were sold at a *Recommended Retail Price* of $6.50. These timetables receive an entry of their own in our table.

Working Time Tables are another world. They were probably (?) issued at least as frequently as were public timetables. But, because they were not numbered like the public timetables, it is difficult to say. Most of the information about the early Working Time Tables comes from the reprints issued by the New Zealand Railway and Locomotive Society and by anecdotal information in a recent signalling history which the Society has published. The references to WTTs in this publication stop at about the turn of the 19th century, when signalling information shifted from the WTT to other publications.

Rather like the Queensland Railways, the NZR, especially in the South Island, grew in isolated sections, which did not join into a complete network for many years. Consequently, for a long time there were many regional and no system working timetables. In the South Island, there were WTTs for Huruni-Bluff (the backbone for the South Island WTT), Picton, the west coast and Christchurch. By the 1930s WTTs seem to have been issued in both a South Island and a North Island edition. The NZLRS has reprinted one of each from the 1940/50 era. From the 1960s NZR WTTs were issued in loose leaf format, updated frequently. One in the Editor's collection, effective from 24th June 1968, contains pages with 20 separate effect dates.

The present New Zealand train operator, *Tranzrail*, continues to issue Working Time Tables, the most recent for which we have a record was for the North Island, issue number 34 of 1998, offered through AATTC's distribution service. This, however, was merely a summary table showing arrival and departure times and frequency for each train. We do not know if a full WTT is issued.

In all, our table lists only 30 out what must have been over 400 public timetables and only 45 of an unknown number of WTTs. Readers can surely add to these.

In the table, the usual conventions for The Times check-lists apply: An ***X*** indicates that the timetable is known to exist and a number with the ***X*** indicates the sequence number assigned to the timetable by the publisher. A question mark beside the ***X*** indicates that a timetable of the indicated time and place is inferred to exist. Timetables which exist, but for which for which the district(s) covered is/are unknown appear in the *Unknown* column.

Replica timetables have an additional entry 'R' beside the X. One of these was a working time table of the Wellington and Manawatu Railway company.

Dates are given with as much precision as possible: the full day of effect, the month, or sometimes only the year.

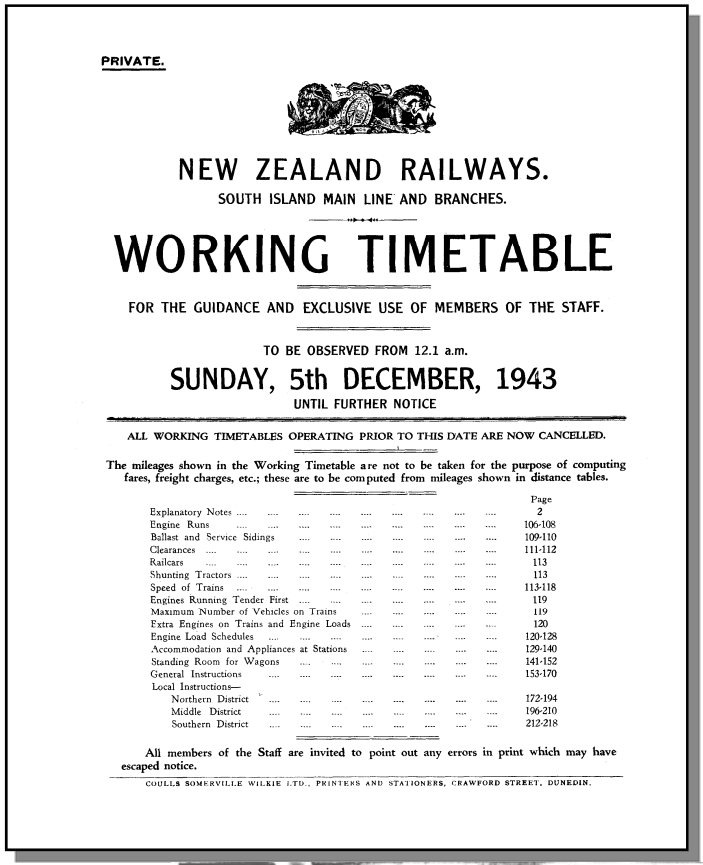
ChCh= Christchurch.

RRG = Rangiteki Railfans Group.

W&MRCL: Wellington and Manawatu Railway Company.

Date	System PTT	RRG PTT	North Is PTT	South Is PTT	Sub'n PTT	North Is. WTT	North Is, Northern District WTT	Auckland WTT	W&MRCL WTT	Wellington WTT	South Is WTT	Huruni-Bluff (Middle Is.) WTT	Picton, Nelson, Westport WTT	Picton WTT	ChCh WTT	Unknown WTT
24-Mar-1879												X				
1-Jul-1879								X				XR				
1-Jul-1880								X								
1881												X				
12-Dec-1881												X				
1-Apr-1882								X								
6-Jul-1882								X								
1-Sep-1882												X				
1882												X				
1-May-1883												X				
28-Nov-1884								XR								
19-Apr-1886												X				
1-Jun-1887										X						
1-Sep-1887																X
6-Aug-1888								X?								
1-Jul-1891										X						X
1-Jul-1896																X
10-May-1897																X
1-Aug-1897												X				
1-Nov-1898								X								X
1-Sep-1900								X								
1-Nov-1901																X
1-Jul-1902																X
1-Nov-1905																X
8-Nov-1905									XR							
1910											X?					
1-Dec-1915							X									
1-Dec-1916											X?					
Aug-1920													X			
Dec-1926							X									
16-Nov-1930	X361															
4-Dec-1932	X368															
1-Dec-1935	X377															
20-Jun-1937	X381															
14-Nov-1938						X							XR			
5-Nov-1939	X386															
5-May-1940	X387															
3-Nov-1940	X388															
5-May-40	X389															
2-Nov-1941	X390															
5-Dec-1943						X					X					
6-Dec-1943														X		
17-Dec-1945				X												
20-Jul-1947						XR										
25-May-1950			X1	X1												
3-Jun-1951			X2	X2												
Dec-1952											XR					
8-Jun-1953				X2												
12-Oct-1953					X											
27-Mar-1955			X3													
6-Dec-1959			X5	X5												
1960					X											
3-Jun-1962				X5												
1-Jul-1962			X7													
1-Apr-1964	X															
28-Jun-1963			X													
6-Dec-1965			X10													
28-Oct-1966			X12	X11												
10-Jul-1967			X	X												
24-Jun-1968															X	
1-Mar-1970					X											
15-Mar-1970											X					
1-Nov-1971	X17															
14-Dec-1972	X18															
1-Dec-1974	X20															

Date	System PTT	RRG PTT	North Is PTT	South Is PTT	Sub'n PTT	North Is. WTT	North Is, Northern District WTT	Auckland WTT	W&MRCL WTT	Wellington WTT	South Is WTT	Hururi-Bluff (Middle Is.) WTT	Picton, Nelson, Westport WTT	Picton WTT	ChCh WTT	Unknown WTT
14-Jul-1976	X21															
Aug-1977	X															
27-Nov-1977					X			X								
1978						X										
1-Jul-1979											X					
Sep-1979	X															
Dec-1979		X														
Jul-1981	X															
May-1982	X															
Mar-1983		X														
May-1983		X														
Jun-1984		X														
4-May-1986	X															
Dec-1986		X														
6-Dec-1987	X															
19-Feb-1989	X															
1-Nov-1989	X															
5-Nov-1989	X															
1-Jan-1992	X															
30-Jun-1993	X															
4-Jul-1993	X															
1-Jun-1994	X															
1-Jul-1994	X															
23-Apr-1995	X															
1-Oct-1997																
19-Oct-1998																
31-Aug-1998						X34										
21-Aug-2000	X															



PRIVATE.

NEW ZEALAND RAILWAYS.

SOUTH ISLAND MAIN LINE AND BRANCHES.

WORKING TIMETABLE

FOR THE GUIDANCE AND EXCLUSIVE USE OF MEMBERS OF THE STAFF.

TO BE OBSERVED FROM 12.1 a.m.

SUNDAY, 5th DECEMBER, 1943

UNTIL FURTHER NOTICE

ALL WORKING TIMETABLES OPERATING PRIOR TO THIS DATE ARE NOW CANCELLED.

The mileages shown in the Working Timetable are not to be taken for the purpose of computing fares, freight charges, etc.; these are to be computed from mileages shown in distance tables.

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All members of the Staff are invited to point out any errors in print which may have escaped notice.

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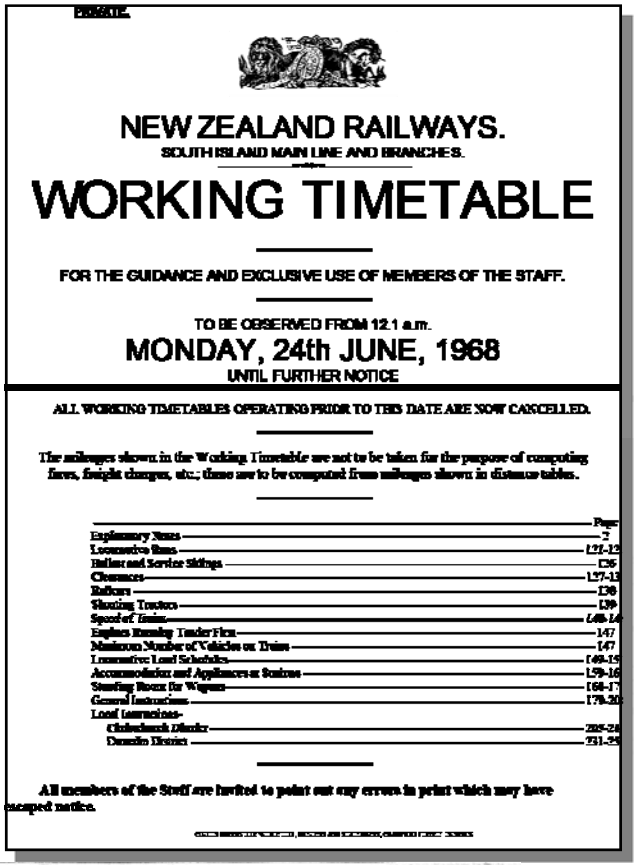

PRIVATE.

NEW ZEALAND RAILWAYS.

SOUTH ISLAND MAIN LINE AND BRANCHES.

WORKING TIMETABLE

FOR THE GUIDANCE AND EXCLUSIVE USE OF MEMBERS OF THE STAFF.

TO BE OBSERVED FROM 12.1 a.m.

MONDAY, 24th JUNE, 1968

UNTIL FURTHER NOTICE

ALL WORKING TIMETABLES OPERATING PRIOR TO THIS DATE ARE NOW CANCELLED.

The mileages shown in the Working Timetable are not to be taken for the purpose of computing fares, freight charges, etc.; these are to be computed from mileages shown in distance tables.

	Page
Explanatory Notes	2
Locomotive Runs	127-12
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Clearances	127-13
Railcars	[illegible]
Shunting Tractors	[illegible]
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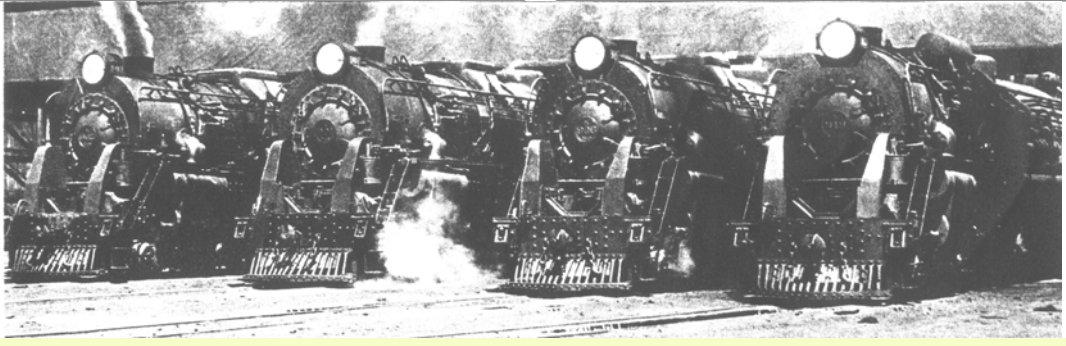
All members of the Staff are invited to point out any errors in print which may have escaped notice.



K class locomotives at Auckland running shed 1937. *Photo: W.W.Stewart*

Timing trains

Not content with the times you find in the timetable? Perhaps you should join the ranks of the 'train performance' mob– people like Cecil J Allen, O. S. Nock, Peter Semmens and **MALCOLM SIMISTER**, *who explains how to compare theory with reality by timing your train.*

An interest in timetables is no armchair hobby, as any train timer will tell you. To understand their timetables, you must record and analyse trains' performances!

I have timed trains for many years, an interest germinated by articles written by Cecil J. Allen and O.S. Nock in the British magazines The Railway Magazine and Railway World in the 1960s and 1970s. Their descriptions stimulated me to try timing for myself, through which I gained a deeper appreciation of train running and timetables.

All AATTC members are aware that just because a timetable allows a certain amount of time for a train to travel from A to B, that is not necessarily the time the train actually requires. Timing allows a train's performance to be assessed to understand how tight its schedule is and hard the locomotive has to work.

While trains in Australia do not generally run at such high speeds nor with such high frequencies as those in Britain and mainland Europe, there is still plenty to entertain those armed with a stopwatch.

For example, in Victoria there are first generation and more modern diesel locomotive hauled trains, Sprinter railcars and, except in the summer months, steam traction too. In New South Wales, Explorer and Endeavour railcars, XPTs and electric multiple units all provide variety, while the tilt train in Queensland has a particular interest all its own. Throw into the equation the severity of some Australian gradients and there is enough to interest anyone.

In addition, train timing has a strong element of the thrill of the chase about it, especially when a driver is trying to make up lost time or keep a very tight schedule, for example when one type of locomotive is substituting for another. I am not advocating reckless driving, of course, but there is no doubt that a train travelling faster than usual is exciting and that can really only be appreciated with the help of a stopwatch.

Years ago in England, I remember being thrilled (and astounded) to 'clock' a Waterloo to Bournemouth third rail electric multiple unit train at 177 km/h, more than 30 km/h faster than its normal maximum speed. While I have not recorded excesses of such magnitude in

EXAMPLE SPEED CONVERSIONS

Seconds for 1 km	Speed km/h	Speed mph	Seconds for 1 km	Speed km/h	Speed mph	Seconds for 1 km	Speed km/h	Speed mph
25.0	144.0	89.5	34.0	105.9	65.8	43.0	83.7	52.0
26.0	138.5	86.0	35.0	102.9	63.9	44.0	81.8	50.8
27.0	133.3	82.8	36.0	100.0	62.1	45.0	80.0	49.7
28.0	128.6	79.9	37.0	97.3	60.5	46.0	78.3	48.6
29.0	124.1	77.1	38.0	94.7	58.9	47.0	76.6	47.6
30.0	120.0	74.6	39.0	92.3	57.4	48.0	75.0	46.6
31.0	116.1	72.2	40.0	90.0	55.9	49.0	73.5	45.7
32.0	112.5	69.9	41.0	87.8	54.6	50.0	72.0	44.7
33.0	109.1	67.8	42.0	85.7	53.3	51.0	70.6	43.9

Melbourne - Geelong, V/Line Passenger and West Coast Railway

	Train ex-Melbourne.	09.55 V/Line				13.55 V/Line			08.43 West Coast Rly		
	Loco/railcars.	R761 4-6-4		N463 Co-Co		Sprinters 7003 & 7016			S300 Co-Co		
	Vehicles tare gross	9 350t 365t		3 130t 145t					6 222t 230t		
	Date	July 1997		June 1999		June 1999			November 1996		
Dist km		Sch min	Actual min.sec	Speeds km/h	Actual min.sec	Speeds km/h	Sch min	Actual min.sec	Speeds km/h	Sch min	Actual min.sec	Speeds km/h
0.0	Melbourne Spencer St	0	0 00		0 00		0	0:00		0	0:00	
	Franklin Street Box	2	3·23		2·03		2	2·02		2	1·49	
1.7	North Melbourne	4	4 30		3 08		4	3 08		4	2·58	
3.5	South Kensington	6	7 08		5 28		6	4.59		6	5.10	
5.6	Footscray		9.42		7.37			6.57		9	7.20	
	depart	9	10 17		8 00		9	8·40				
10	Seddon		1·53		1·18			1·04			8·17	
1.9	Yarraville		2 51		2 13	61		1·45	86		9·08	65
3.6	Spotswood		4 20		4 15	sigs		3 15	sigs		10.43	65
4.9	Newport	5	6.03	sigs	5.50		5	4.36		13	12.05	
7.8	Altona Junc	8	9 06	75	8 07	95	8	6:47		16	14:34	84
11 4	Km 17		11·20	107	10·07	118		8·37	132		16·46	108
15 4	Km 21 (Laverton)	12	13 26	118	12 14	114	12	11·39	sigs	21	21·54	sigs
19.4	Km 25		15 26	121	14 20	117		13.31	131	(6)	26.10	70
23.4	Km 29		17.26	117	16.24	117		15.18	130		29.17	90
26.1	Werribee	17	18 51	109	17 52	112	17	16:33	130	33	30:50	109
29 4	Km 35		20·30	121	19·32	116		18·02	133		32·39	112
34 4	Km 40		23 04	118	22 06	117		20·16	133		35·21	111
39.4	Km 45		25 34	125	24 45	114		22.30	135		38.06	111
41.9	Little River	25	26.51	120	26.09	108	25	23.41	120	41	39.27	105
44.4	Km 50		28 06	120	27 28	114		24:51	134		40:48	111
49 4	Km 55		30·39		30·07	113		27·04	136		43·32	112
51 9	Lara	31	33 14		31 58		31	28 53		46	44·51	109
	depart		34 30		32 21			29.19				
2.5	Km 60		2.46	81	2.05	107		1.57	122		46.14	112
8.4	Corio	4	5 15	114	4.11	114	4	3.45	135	49	48:20	112
9 7	North Shore Km 67		6·59	87	5·55	92		5·16			50·05	93
11 5	Km 69 (N G'long 'A' box	6	8 27	86	7 12			6·48	sigs?	60	61·24	
12.5	North Geelong	8	9 40		8 16		8	8 22		52	52.04	
	depart		10.08		8.39			9.06		(2)		
2.6	Geelong	4	4 09		3 16		7*	3:11		57	54:51	

Recovery time in brackets * Including 3 minutes recovery time "sigs" = signal check

Australia, I have experienced plenty of instances of drivers taking a liberal view of speed limits. For their sakes, discretion is important when discussing these logs publicly.

For anyone who has not tried it or is unsure how to go about it, train timing is not difficult. The tools of the trade are a digital watch displaying the time in seconds, a stopwatch and a notebook.

In addition to recording the train's starting and stopping times, times at intermediate places are also important, especially those with a time in the working timetable. Stations and junctions are obvious places to record passing times but where these are few and far between, I note times at kilometre posts. Recording all these times enables a good comparison of the train's operation relative to its timetable.

Ascertaining a train's speed requires using a stopwatch to very accurately note the time taken to travel a half or one kilometre and then calculating the speed from the reading (see table). In Victoria there are posts every kilometre on the down side of all lines showing the distance from Melbourne. In New South Wales the situation is better with a post every half kilometre on the down side showing distance from Sydney. I am unsure of the situation in other States but, for interest, in Britain there is a post every quarter of a mile (0.4 km), while German rail fans are really lucky in having a post every 0.2 kilometre on both sides of the line. On the high speed TGV lines in France there are posts every kilometre, plenty enough when they flash past the window every 12 seconds at 300 km/h!

This method, which is usually only practical during daylight, gives the average speed of the train over the half or one kilometre and not necessarily the actual speed at the second post. For example, if the train is accelerating, the reading will be slightly lower than the actual speed, and if the train is decelerating, slightly higher than the actual. (An accelerating train is travelling faster at the second post than its average speed between the posts, and slower than its average when decelerating). Speed calculations are therefore more accurate in New South Wales than in Victoria because the distance between the posts is shorter.

Other important information to record is the locomotive, the carriages and their weight, the number of passengers (for calculating total train weight) and the weather conditions. Heavy rain or strong winds can make a significant difference to train performance.

So onto some logs. Tabulated are four runs between Melbourne and Geelong featuring two different types of motive power (steam and diesel) and four different classes of traction.

The first run tabulated is one of the instances when an 'R' Class 4-6-4 hauled a regular service train between Melbourne and Geelong during the July school holidays. Considering the schedule was that for Sprinter railcars (permitted to travel at 130 km/h) and the load of well over 350 tonnes, the performance of R761 was superb.

While not having the acceleration of N463 in the second run with such a load, much less that of a Sprinter, R761 had no trouble maintaining speed at 120 km/h and more. Dropping only a little over two minutes on the Sprinter schedule between Footscray and Lara

was magnificent running and represents a start-to-stop average speed of 93.7 km/h. Eliminating the effect of the blanket 60 km/h speed restriction in the inner suburban area, average speed from passing Newport to the Lara stop was 103.7 km/h or about 64 mph.

The second run in the table features the same train and schedule but with an 'N' Class diesel hauling a three-car 'N' set of carriages. N463's driver was more restrained than R761's and kept to the 115 km/h maximum speed permitted for his locomotive. However, despite the light load typical of trains in Victoria, N463 was unable to quite keep the Sprinter schedule.

That the timetable could be achieved is illustrated in the third run tabulated when a brace of Sprinters made light of the overall schedule, partly by some lively running just for the fun of it, it seems! The log illustrates how quickly Sprinters can accelerate and how lively they can run. The start-to-stop average speed from Footscray to Lara was 107.8 km/h, inclusive of two signal checks, while that from passing Newport to the Lara stop (again including the signal checks) was 116.1 km/h (about 72 mph)!

The last run in the table features 'first generation' diesel S300 on West Coast Railway's 08.43 Melbourne to Warranambool service. The load was not particularly heavy and at no time did the train exceed the maximum permitted speed. Indeed, the run shows how easily the schedule was maintained, despite what seems like a usual signal check for this train at Laverton, although without the 8 minutes of recovery time built in it might have been a different matter. Certainly, during the last two years or so rebuilt 'R' Class R711 has had no problems maintaining this schedule with heavier loads than that

Undated TGR timetable

Letter

A year ago, we published 'Tasmania A to Q'. It continues to generate correspondence, the latest letter from **JIM STOKES** *uses Holmesian techniques to date a timetable from* **IAN COOPER'S** *collection (Times December 2000)*

Sorry, should have sent this sooner.

In the Times of December 2000 Ian Cooper queried the date of a Hobart suburban timetable published in our TGR list in the September issue. Ian is quite right, the date should be 30 October 1972. I had it correct in my first draft, but the gremlins must have go to it.

I tried to date the Tasman Limited timetable published with Ian's letter. The timetables and fares are identical with those in Moore's Guide for May 1970. The next Moore's Guide I have is October 1973, in which the times are virtually identical but the fares are about 10% higher. Ian's timetable carries the rather primitive TGR lettering which first appeared on the November 1970 issue of the TGR's publicity newsletter T Rails. Issues up to October 1970 carried the circular 'lion on a map of Tasmania' logo. So Ian's timetable probably dates from late 1970 or 1971.

Dr Jim Stokes

Isle of Wight re-revisited

Letter

TRIS TOTTENHAM *adds to his recent article on the Isle of Wight.*

Just a short postscript to my article which appeared in the February 2001 *The Times*. The heavy rain that affected much of England during the first weeks of October 2000 flooded the tunnel at Ryde to a depth of over 2.5 metres. Only two of the five electric units escaped damage and the line was closed for four days while 8 washaways were attended to. There is now a proposal around that, when the units become life expired in a couple of years, the current railway be converted to a light rail line. It seems that there is still a further saga to be played out on the Isle of Wight.

Tris Tottenham

Private buses on the Pittwater peninsula.

JIM O'NEIL *takes us for another tour around the highways and by-ways of Sydney on a private bus. This month we visit the northern beaches, where the species is now effectively extinct. Where private buses once connected with the trams from Manly, now all is the blue and white of Sydney Buses. Take a tour around the peninsula.*

There were very few private bus services in the Manly Warringah area, along the coast in Sydney's North East, which was a virtual government bus monopoly. Of the three which once existed there, the smallest, and furthest north, was Pittwater Bus Lines. Although wholly within the Sydney government bus area, it was never assigned a route number in the private bus series.

Pittwater operated at a disadvantage - private buses weren't allowed to pick up along the routes of government services. The route 190 ran along Barrenjoey Road, outlined in bold on the map (on page 11), and the less frequent 189 ran from Avalon Beach along Avalon and Hudson Parades to Taylor's Point (marked PT on the map). Consequently all of the private bus services had restrictions on pick up and set down, outlined to the left of the map. The longest restriction was on the service north to Whale Beach, here first set-down was at Alexander Street, three blocks after leaving Barrenjoey Rd and almost halfway to the terminus at Bynya Road. William St on the Taylor's Point via Careel Bay and Stokes' Point run was almost as far from Avalon, while Palm Grove Road, on the Bilgola Plateau runs, was only a block from Barrenjoey Road, and not far from Avalon.

Not surprisingly, the services were rather limited, as we can see from the 1st June 1979 timetable on page 12. Schedule A, the all-year schedule ran only on Thursdays and Fridays, and could be run by a single bus. It had no services in the morning peak, but started at Avalon at 9.30 for Stokes' Point and Taylor's Point, then ran at 9.56 to Bilgola Plateau, followed by 10.15 to Whale Beach, then 11.00 to Stokes' Point again, and so on. This was a shopper's service, though it ran until 5.28 p.m.

Schedule B operated during school terms only, though not restricted to school children. Many of the afternoon runs were in common to

Restriction on Pick-up	Set-down
Avalon to Whale Beach	First Set-down: Alexander Road
Whale Beach to Avalon	Last Pick-up: Alexander Road
Avalon to Taylor's Point	First Set-down: William Street
Taylor's Point to Avalon	Last Pick-up: William Street
Avalon to Bilgola Plateau	First Set-down: Palm Grove Road
Bilgola Plateau to Avalon	Last Pick-up: Palm Grove Road

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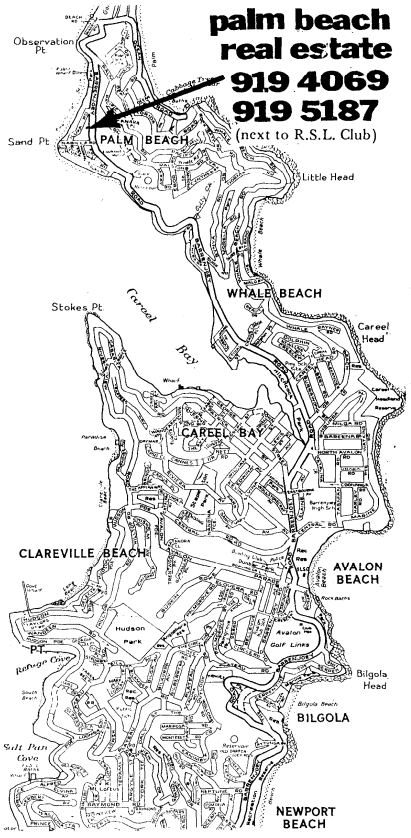

BUS TIMETABLE

AVALON BUS SERVICE

AVALON TO WHALE BEACH
BARRENJOEY ROAD – WHALE BEACH ROAD – NORMA ROAD – BYNYA ROAD – PACIFIC ROAD

AVALON TO STOKES POINT & TAYLOR'S POINT
BARRENJOEY ROAD – GEORGE STREET – ELVINA AVENUE – PATRICK STREET – CABARITA ROAD – RIVERVIEW ROAD – HUDSON PARADE

AVALON TO TAYLOR'S POINT VIA BILGOLA PLATEAU
PLATEAU ROAD – BILAMBEE ROAD – WANDEEN ROAD – HUDSON PARADE – AVALON PARADE

AVALON TO BILGOLA PLATEAU
OLD BARRENJOEY ROAD – PLATEAU ROAD – ARGYLE ROAD – RAYMOND ROAD – YORK TERRACE – DALY STREET – THE OUTLOOK

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J. & K. BOOTH
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Amended: 1st June, 1979

SCHEDULE A

REGULAR SERVICE – THURSDAYS and FRIDAYS ONLY – ALL YEAR

WHALE BEACH

	Depart Avalon	Marine Parade	Whale Beach Road	Bynya Road	Whale Beach Road	Marine Parade	Arrive Avalon	
A.M.	10.15	–	10.20	10.27	10.30	10.35	10.39	A.M.
A.M.	11.55	12.00	12.05	12.10	12.15	12.20	12.25	P.M.
P.M.	1.30	1.35	1.40	1.45	1.50	–	1.55	P.M.
* P.M.	3.00	–	3.10	3.18	3.28	–	3.35	P.M.
* P.M.	4.15	–	4.20	4.25	4.30	–	4.35	P.M.

STOKES POINT & TAYLOR'S POINT

	Depart Avalon	Patrick Street	Stokes Point	Taylor's Point	Stokes Point	Patrick Street	Arrive Avalon	
A.M.	9.30	–	–	9.36	9.40	9.48	9.52	A.M.
A.M.	11.00	11.04	11.10	11.16	11.22	11.28	11.32	A.M.
P.M.	2.00	2.04	2.10	2.16	2.22	2.28	2.32	P.M.
* P.M.	4.00	–	4.07	–	4.07	4.10	4.15	P.M.
* P.M.	5.12	5.15	5.20	5.28	–	–	–	

BILGOLA PLATEAU & TAYLOR'S POINT

	Depart Avalon	Plateau Road	Bilgola Plateau	Plateau Road	Taylor's Point	Arrive Avalon	
A.M.	9.56	10.00	10.05	10.08	–	10.12	A.M.
A.M.	11.35	11.39	11.44	11.47	–	11.50	A.M.
P.M.	2.35	2.39	2.44	2.47	–	2.50	P.M.
* P.M.	3.35	3.40	–	–	3.45	3.55	P.M.
* P.M.	4.40	4.45	4.50	4.55	–	4.58	P.M.

SCHEDULE B

SCHOOL BUS SERVICE, *operates during state school terms, but not restricted to school children.*

MONDAYS, TUESDAYS, WEDNESDAYS, THURSDAYS & FRIDAYS

WHALE BEACH

	Depart Avalon	North Avalon Whale Beach Rd.	Whale Beach Bynya Road	North Avalon Whale Beach Rd.	Arrive And Barrenjoey High School	Avalon	
A.M.	–	7.53	8.00	8.15	8.20	8.23	A.M.
A.M.	8.50	8.53	9.00	9.12	–	9.20	A.M.
* P.M.	3.00	3.10	3.18	3.28	–	3.30	P.M.
P.M.	3.45	3.50	4.00	4.15	–	–	P.M.
* P.M.	4.15	4.25	4.30	4.35	–	4.38	P.M.

STOKES POINT

	Depart Avalon	Riverview Road	Patrick Street	Stokes Point	Patrick Street	Riverview Road	And	Arrive Avalon	
A.M.	8.00	8.02	–	8.06	8.10	–	–	8.15	A.M.
A.M.	8.45	8.48	–	8.55	9.00	–	–	9.06	A.M.
P.M.	3.00 (3.05 School)	3.12	–	3.15	3.18	–	3.20 (B'joey H.School)	–	P.M.
P.M.	3.45	–	3.50	3.55	–	4.00	–	4.05	P.M.
* P.M.	4.03	4.05	–	4.10	4.13	–	–	4.16	P.M.
* P.M.	5.12	–	5.15	5.20	–	5.25	5.28 (Taylor's Pt.)	5.35	P.M.

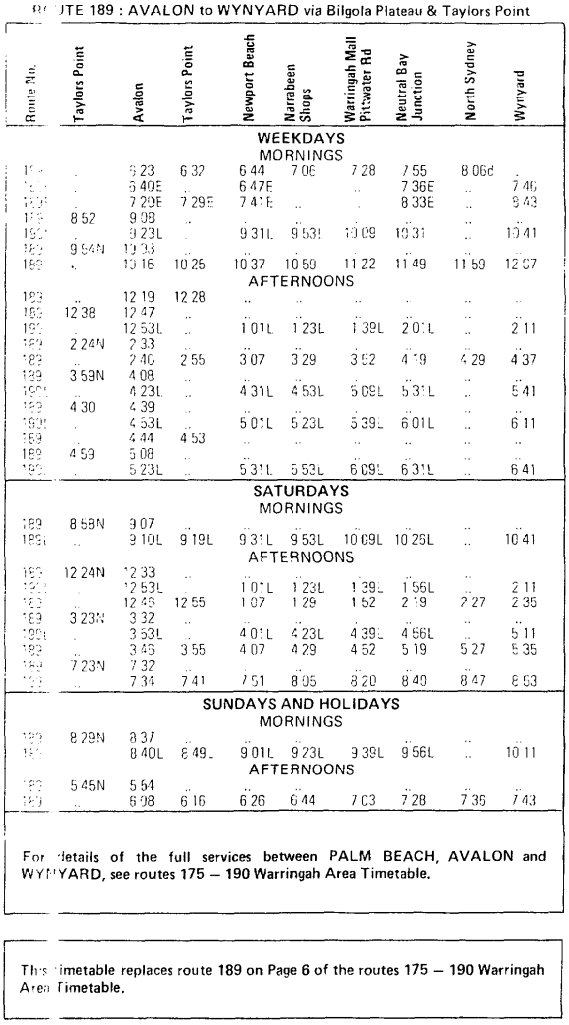
BILGOLA PLATEAU

	Depart High School	Avalon	Plateau Road	Bilgola Plateau Argyle Street	Taylor's Point	Plateau Road	Arrive Avalon	Barrenjoey High School	
A.M.		7.45	7.50	7.52	–	7.54	7.58	–	A.M.
A.M.		8.15	8.18	–	8.27	–	8.38	8.43	A.M.
A.M.	8.20	–	8.26	8.30	–	8.35	8.40	8.43	A.M.
P.M.	3.23	–	3.30	3.38	–	3.40	3.44	–	P.M.
P.M.	3.23	–	3.30	–	3.40	–	3.44	–	P.M.
* P.M.		3.35	3.40	–	3.48	–	3.55	–	P.M.
P.M.		4.00	4.05	4.10	–	4.12	4.15	–	P.M.
* P.M.		4.40	4.45	4.50	–	4.55	4.58	–	P.M.

* denotes bus-runs common to both schedules. Note: No service weekends or public holidays.

With Compliments of **palm beach real estate** 1093 Barrenjoey Road, Palm Beach. Telephone: 919.5187, 919.4069.

Pittwater Bus Lines timetable of 1 June 1979



ROUTE 189 : AVALON to WYNYARD via Bilgola Plateau & Taylors Point

Route No.	Taylors Point	Avalon	Taylors Point	Newport Beach	Narrabeen Shops	Warringah Mall Pittwater Rd	Neutral Bay Junction	North Sydney	Wynyard
				WEEKDAYS MORNINGS					
189	..	5 23	6 32	6 44	7 06	7 28	7 55	8 06d	..
189	..	5 40E	..	6 47E	..	..	7 36E	..	7 46
189	..	7 29E	7 29E	7 41E	..	..	8 33E	..	9 43
189	8 52	9 08	..	..	..	..	..	..	..
189	..	9 23L	..	9 31L	9 53L	10 09	10 31	..	10 41
189	9 54N	10 03	..	..	..	..	..	..	..
189	..	10 16	10 26	10 37	10 59	11 22	11 49	11 59	12 07
				AFTERNOONS					
189	..	12 19	12 28	..	..	..	..	..	..
189	12 38	12 47	..	..	..	..	..	..	..
189	..	12 53L	..	1 01L	1 23L	1 39L	2 01L	..	2 11
189	2 24N	2 33	..	..	..	..	..	..	..
189	..	2 46	2 55	3 07	3 29	3 52	4 19	4 29	4 37
189	3 53N	4 08	..	..	..	..	..	..	..
189	..	4 23L	..	4 31L	4 53L	5 09L	5 31L	..	5 41
189	4 30	4 39	..	..	..	..	..	..	..
189	..	4 53L	..	5 01L	5 23L	5 39L	6 01L	..	6 11
189	..	4 44	4 53	..	..	..	..	..	..
189	4 53	5 08	..	..	..	..	..	..	..
189	..	5 23L	..	5 31L	5 53L	6 09L	6 31L	..	6 41
				SATURDAYS MORNINGS					
189	8 58N	9 07	..	..	..	..	..	..	..
189	..	9 10L	9 19L	9 31L	9 53L	10 09L	10 25L	..	10 41
				AFTERNOONS					
189	12 24N	12 33	..	..	..	..	..	..	..
189	..	12 53L	..	1 01L	1 23L	1 39L	1 56L	..	2 11
189	..	12 45	12 55	1 07	1 29	1 52	2 19	2 27	2 35
189	3 23N	3 32	..	..	..	..	..	..	..
189	..	3 53L	..	4 01L	4 23L	4 39L	4 56L	..	5 11
189	..	3 45	3 55	4 07	4 29	4 52	5 19	5 27	5 35
189	7 23N	7 32	..	..	..	..	..	..	..
189	..	7 34	7 41	7 51	8 05	8 20	8 40	8 47	8 53
				SUNDAYS AND HOLIDAYS MORNINGS					
189	8 29N	8 37	..	..	..	..	..	..	..
189	..	8 40L	8 49L	9 01L	9 23L	9 39L	9 56L	..	10 11
				AFTERNOONS					
189	5 45N	5 54	..	..	..	..	..	..	..
189	..	6 08	6 16	6 26	6 44	7 03	7 28	7 35	7 43

For details of the full services between PALM BEACH, AVALON and WYNYARD, see routes 175 – 190 Warringah Area Timetable.

This timetable replaces route 189 on Page 6 of the routes 175 – 190 Warringah Area Timetable.

2

ROUTE 189 : WYNYARD to AVALON via Bilgola Plateau & Taylors Point

Route No.	Wynyard	North Sydney	Neutral Bay Junction	Warringah Mall Pittwater Rd	Narrabeen Shops	Newport Beach	Taylors Point	Avalon	Taylors Point
				WEEKDAYS MORNINGS					
189	..	..	..	..	..	..	..	9 23	9 32n
189	6 08	6 15	6 23	6 52	7 09	7 27	7 36	..	..
189	7 06	7 08	7 17	7 44	8 07	8 29	8 41	..	..
189	..	..	..	..	..	..	8 52	9 08	..
189	8 15	8 23	8 32	8 57	9 20	9 42	9 54	10 07	..
190L	8 56L	..	9 05L	9 26L	9 41L	10 03	..	10 11	..
189	..	..	..	..	..	..	..	10 16	10 26n
190L	10 55L	..	11 05L	11 25L	11 41L	12 03	..	12 11	..
				AFTERNOONS					
189	..	..	..	..	..	..	..	12 19	12 28
189	..	..	..	..	..	..	12 38	12 47	..
189	12 45	12 53	1 02	1 27	1 50	2 12	2 24	2 33	..
190L	1 25L	..	1 35L	1 56	2 11L	2 33	..	2 41	..
189	..	..	..	..	..	..	..	2 46	2 55n
189	2 15	2 23	2 32	2 57	3 20c	3 47	3 59	4 08	..
190E	3 25F	..	3 35E	..	4 07E	4 29	..	4 36	..
189	..	..	..	..	..	..	..	4 44	4 53
189	..	..	..	..	..	..	4 30	4 39	..
189	..	..	..	..	..	..	4 59	5 08	..
191	..	..	..	..	..	..	..	5 23u	5 40u
189E	4 45E	..	4 55E	..	5 37E	5 47	5 59	6 07	..
189E	5 20	..	5 30E	..	6 02E	6 22	6 34	6 42	..
				SATURDAYS MORNINGS					
189	..	..	..	..	..	8 46	8 58	9 07	..
189	..	..	..	..	..	..	..	9 10	9 19n
189	10 45	10 53	11 01	11 27	11 50	12 12	12 24	12 33	..
				AFTERNOONS					
190L	11 25L	..	11 35L	11 56L	12 11L	12 33	..	12 41	..
189	..	..	..	..	..	..	..	12 46	12 55n
189	1 45	1 53	2 01	2 26	2 49	3 11	3 23	3 32	..
190L	2 25L	..	2 35L	2 56L	3 11L	3 33	..	3 41	..
189	..	..	..	..	..	..	..	3 46	3 55n
189	5 45	5 53	6 01	6 26	6 49	7 11	7 23	7 32	..
190L	6 25L	..	6 35L	6 52L	7 05	7 23	..	7 30	..
189	..	..	..	..	..	..	..	7 34	7 41
				SUNDAYS AND HOLIDAYS MORNINGS					
189	..	..	..	..	..	8 19	8 29	8 37	..
190	7 10	7 17	7 26	7 52	8 11	8 29	..	8 36	..
189	..	..	..	..	..	..	..	8 40	8 49n
				AFTERNOONS					
189L	4 25L	..	4 35L	4 56L	5 11	5 33	5 45	5 54	..
189	..	..	..	..	..	..	..	6 08	6 16n

c – Bus diverts via Pittwater High on School Days
d – Bus continues to Milsons Point.
n – Bus continues to Newport.
u – Bus runs via Stokes Point. See route 191 for details.
E – EXPRESS bus. See Page 8 for travelling restrictions.
L – Limited Stop EXPRESS bus. See Page 8 for travelling restrictions.
N – Bus comes from Newport 12 minutes earlier.

3

U.T.A. bus timetable for route 189, dated May 1986

both, marked * in the Timetable. Three additional buses were required in school term, to operate the 3.45 buses to Whale Beach and to Stokes' Point and the 4.00 to Bilgola Plateau, for example.

This service proved unprofitable and in 1986 Pittwater Bus Lines surrendered their licences. The U.T.A. (government buses) took over the service and extended its operations, no longer restricted by competing with itself, and provided connections to Wynyard. The bulk of the services to Bilgola Plateau were now provided by diverting the 189 (from Wynyard) through the Plateau to Taylor's Point and then back over the old route to terminate at Avalon - some of these services connected with 190 Express buses to Wynyard (see May 1986 timetable above). A few 189 services started from Newport, while other services were provided on the old runs, now numbered 191. these were still operated by a single bus but running Mondays to Fridays. Was the new, more frequent service more profitable, or were its losses more effectively concealed in the consolidated accounts?

Both the 189 and the local routes have continued, the latter with separate numbers from 1987; 191 Avalon - Bilgola Plateau; 192 Avalon - Stokes' Point and 193 Avalon - Whale Beach.

Busy days at Zeehan– what the timetables **really did** show

Letter

JIM STOKES *adds some information about Zeehan in 1908, to complement our article in the January issue. Timetables from Jim's collection show that nearly all of the trains described in the original article did in fact appear in the Working Timetable of the day. Which, I suppose, is a lesson in how to look before you leap, but also in how The Times readers can extend the knowledge available to all through correspondence.*

I am writing to add a few suggestions to your very interesting piece of detective work on Zeehan's 36 arriving/departing trains/trams in March 1908 (The Times January 2001). Your article encouraged me to try to date a TGR working timetable which I copied in the CME's office in Launceston in the 1960s (copy enclosed). I did not copy the title page, but wrote 1905 on the first timetable page. I have always been a bit dubious about the 1905 and I now think the WTT must have been issued some time in 1907. It does not include the Mowbray Racecourse branch (opened on 16 November 1907) or West Ulverstone (which first appeared in the TGR timetables in Walch's Tasmanian Almanac for 1909). It does include Ravenswood and Nelsons Creek (both first in Walch in 1907) and Mona Vale (first in Walch 1908). It appears to be identical to the timetables in Walch 1908, but it differs in varying degrees from the timetables in Walch 1907 and earlier and 1909 and later. I think it must have been issued after the TGR provided information for Walch 1907 (which must have been in late 1906 or early 1907) but before the Mowbray Racecourse line opened. I shall refer to it as the 1907 WTT.

Strahan – Zeehan

The 1907 WTT shows that the engine of the morning southbound train remained at Strahan to work a special if required and an engine which had been stabled at West Strahan overnight took the mixed back to Zeehan. In the 1907-08 financial year West Strahan, Strahan Wharf and Regatta Point between them dispatched 22,019 tons of freight and received 11,103 tons. On these numbers the two mixed trains would have been adequate for the traffic, even allowing for the fact that the C class 2-6-0s took a ruling grade load of only 120 tons goods or 100 tons mixed. However as you point out the arrival of a shipment of coal/coke at Strahan Wharf would certainly require extra trains and it is reasonable to allow the line a long term average of 3 trains per weekday.

Looking at the intermediate sidings, Bellinger, Henty, Firewood, Eden and Grieves dispatched a total of 8,702 tons in 1907-08, which would have been predominantly firewood and milling timber. Oceana Jct recorded 4,010 tons outward (?mainly timber/ firewood off the Mariposa Tram) and Austral recorded 1,400 tons inward (?mainly firewood for the smelters pumphouse). The smelters shunter might have run as far south as Oceana to lift firewood, but overall the intermediate traffic would not justify any more than the 3 Strahan – Zeehan trains we have already identified.

There would certainly have been quite a few excursion trains out of Zeehan during the year, but I doubt if they would have averaged anything like one per day. In 1907-08 Zeehan recorded 33,480 outward and 20,896 inward passengers.

Zeehan – Dundas

In addition to the twice daily Maestris service the 1907 WTT shows a conditional trip to Brewery Jct. This would have been mainly for traffic from the Adelaide Proprietary mine which was enjoying a brief period of prosperity. The curious thing is that the WTT allows only 10 minutes at Brewery Jct, which would not have been enough to run up to the mine. Either they ignored the timetable or the Adelaide branch was still being worked by horses.

Bell Jct – Tasmanian Smelters

In 1907-08 the smelters received 86,692 tons, but dispatched only 8,751 tons, which suggests that it took 10 tons of ore, fuel and flux to produce every ton of refined metals. The problem is to estimate the split of traffic between 1067 and 610 mm gauges. We can probably credit the 1067 mm gauge with at least 10,000 tons of coal/coke from Strahan Wharf, 15,000 tons of ore from the Dundas line and 10,000 tons of ore from the Emu Bay (although it may well have been less). On the 610 mm gauge nearly all of the 14,178 tons consigned from Williamsford would have been ore, as would be several thou-

sand tons from sidings in the Nickel Show/North Dundas Road area and the circa 4,000 tons consigned from the Comstock Tram. This would leave perhaps 20,000 – 30,000 tons to come from Zeehan area mines via the Zeehan Tramway Coy's line. Given the 1 in 40 climb for loaded trains from Zeehan to Silver Bell Jct and the lack of a locomotive water supply (as far as I know) at the smelters there would probably have been at least two 1067 mm gauge and three 610 mm gauge trips to the smelters and return each weekday.

North-East Dundas and Comstock Trams

The 1907 WTT gives the most intensive Zeehan – Williamsford line service that I know of. In addition to the Mixed there was a mineral train which took its load up to the summit at Confidence Saddle in two sections on the return journey. There was also a firewood train to North Dundas Road, which presumably ran on a line clear report. It was necessary for the firewood train to get back to Zeehan on time so that the mineral train could be issued with a staff ticket at Confidence Saddle. The firewood train was an enduring feature of the lower end of the line. The General Appendix of 1 February 1918 noted that 'Firewood trains run by a Krauss engine to the 5-mile may bring in 8 trucks of firewood' and RJ Howard was still running a firewood train to North Dundas Road in 1937 with an ex ZTC Krauss.

On days that all three trains ran and there was also a trip to Comstock the motive power situation must have been fairly tight. Presumably J1 ran the mineral train, the two G class 0-4-2 tanks ran the Mixed, Comstock and the smelters between them and the two remaining Krauss 0-4-0 tanks ran the firewood train and shunted Zeehan yard.

Zeehan Tramway Coy

The ZTC's traffic returns for 1908 record that the tramway ran 6,526 miles during the year and carried 1,111 passengers. Regular passenger traffic had ceased in 1905, but excursion traffic continued until around 1918. The operating mileage equates to between four and five round trips over the line each weekday. In addition to the ZTC's two locomotives the Western silver mine and Dunkley's timber tram had two locomotives each and the Silver Spray mine had one. 'Foreign' locomotives did some work over the ZTC, but I do not know whether their mileage was in included in the ZTC's returns.

I am not entirely convinced that the '36 trains and trams' includes the ZTC at all. It is a pity that whoever made the statement was not warned that he would be subject to ruthless deconstruction 92 years later, so that he could have given a bit more detail. On my numbers we have got to 34 arrivals and departures from Zeehan even without the ZTC. It may be that because the ZTC exchange sidings were in the north-western corner of Zeehan yard some distance from the passenger station ZTC movements were not included.

[The Editor notes that the TGR timetable also confirms that the EBR ran two trains into Zeehan at this time, as he speculated in the original article]

MT. DUNDAS-ZEEHAN LINE

M SECTION.

MILEAGE. From Zeehan Miles	MILEAGE. From Zeehan Chains	MILEAGE. Between Stations Miles	MILEAGE. Between Stations Chains	DOWN	2	4	E. B. Co.'s train 6	8	E. B. Co.'s train 10
					A.M.	A.M.	P.M.	P.M.	P.M.
...	...	...	...	ZEEHAN † ... ... Depart	6 45	8 20	1 50	4 0	4 50
2	1	2	1	RAYNA JUNCTION †	...	...	1 58	...	4 58
2	60	0	59	BRICKFIELD'S SIDING	...	...	...	...	...
4	2	1	22	LESLIE*	...	...	...	...	...
4	75	0	73	NOBBY'S CUTTING SIDING*	...	...	...	...	...
5	38	0	43	BREWERY JUNCTION *	7 10	...	...	...	...
5	75	0	37	DUNDAS †	...	8 50	...	4 30	...
7	25	1	30	MAESTRIS ... ... Arrive	...	9 0	...	4 40	...

MILEAGE From Maestris Miles	MILEAGE From Maestris Chains	MILEAGE Between Stations Miles	MILEAGE Between Stations Chains	DOWN	1	3	E. B. Co's train 5	E. B. Co's train 7	9
					A.M.	A.M.	P.M.	P.M.	P.M.
...	...	...	...	MAESTRIS ... ... Depart	...	9 15	...	...	5 0
1	30	1	30	DUNDAS	...	9 30	...	...	5 15
1	67	0	37	BREWERY JUNCTION * ...	7 20	...	...	...	...
2	3	0	43	NOBBY'S CUTTING SIDING	...	...	...	...	...
3	23	0	73	LESLIE*	...	...	...	...	...
4	45	0	45	BRICKFIELD'S SIDING	...	...	...	...	...
5	24	0	59	RAYNA JUNCTION	...	...	12 42	4 22	...
7	25	2	1	ZEEHAN ... ... Arrive	7 45	10 10	12 50	4 40	5 50

Nos. 1 and 2 are conditional. Nos. 7 and 10 do not run on Mondays.

NORTH-EAST DUNDAS TRAMWAY

N SECTION.

MILEAGE. From Zeehan Miles	MILEAGE. From Zeehan Chains	MILEAGE. Between Stations Miles	MILEAGE. Between Stations Chains	DOWN	A Mineral 2	B Mixed 4	C F'wood 6	A Min. 8	B Min. 10
					A.M.	A.M.	A.M.	A.M.	P.M.
...	...	...	...	ZEEHAN† ... ... Depart	6 30	7 30	10 0	...	...
2	20	2	20	RACECOURSE *	...	...	...	...	...
3	20	1	00	KING'S*	...	...	...	...	...
4	40	1	20	NICKEL SHOW*	...	...	...	...	...
5	20	...	60	NORTH DUNDAS ROAD*.. ...	7 5	8 5	10 30	...	...
7	00	2	40	MELBA*...	...	...	...	...	...
8	20	...	40	COMMONWEALTH*	...	...	...	P.M. 10	...
8	60	...	40	KAPI*	7 40	8 40	...	12 10	12 45
11	00	2	20	CONFIDENCE SADDLE† ...	8 5	9 5	...	...	...
12	00	1	00	GOOD INTENT TRACK*	...	...	...	...	...
12	00	...	60	GREAT NORTHERN*	...	...	...	...	...
13	40	...	60	FRASER'S*	...	...	...	...	...
14	40	1	00	MONTEZUMA*	8 38	9 38	...	12 43	1 10
15	60	1	20	FAHL ORE*	...	...	...	...	...
16	40	...	60	CONLIFFE'S*...	...	...	...	...	...
18	00	1	40	WILLIAMSFORD† ... ...Arrive	9 5	10 5	...	1 10	1 43

MILEAGE From Maestris Miles	MILEAGE From Maestris Chains	MILEAGE Between Stations Miles	MILEAGE Between Stations Chains	DOWN	A Mineral 1	B Min. 3	C F'wood 5	A Min. 8	B Min. 10
					A.M.	A.M.	P.M.	P.M.	P.M.
...	...	...	...	WILLIAMSFORD† ... ... Depart	10 6	10 50	...	2 0	3 5
						P.M.		...	...
7	00	7	00	CONFIDENCE †	11 21	12 5	...	3 15	4 20
12	60	5	30	NORTH DUNDAS ROAD*... ...	...	...	2 20	4 15	5 20
18	00	5	20	ZEEHAN † ... ...Arrive	...	...	2 55	4 50	5 55

Trains stop at stations marked * when required only. Nos. 3, 6, 8, 1, 5, and 7 are conditional.
All passenger trains to reach Zeehan before dark. No. 5 to reach Zeehan sharp to time.

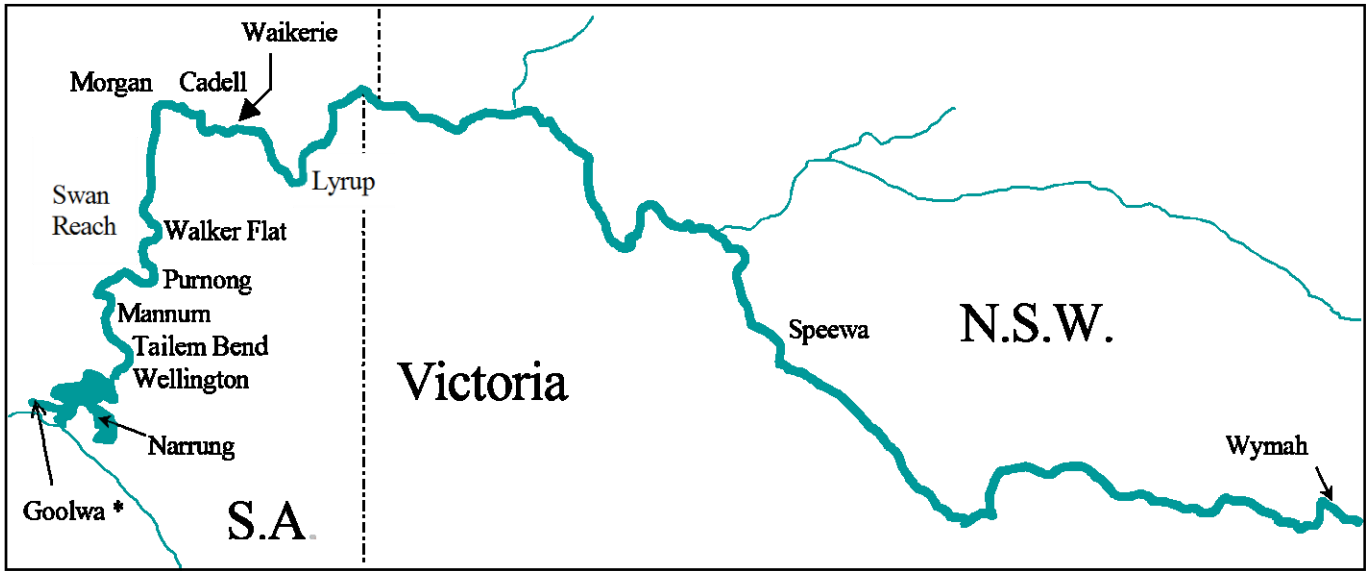
Tables for M Section and N Section reproduced from the 1907 TGR WTT, showing between them 16 arrivals and departures at Zeehan station, almost half the trains reported by the reporter of the Zeehan & Dundas Herald in 1908. The Strahan-Zeehan line accounted for probably 6 more and the remainder of the reported 36 would have run between Zeehan and the Smelters.

Graphic Insight #65

CHRIS BROWNBILL, *in keeping with the current interest in the Murray River, floats his Li-Lo merrily down the stream, and counts the number of punts and ferries he sees*

This month, Graphic Insight departs a little from its habitual stamping grounds, and for the first time takes a look at water transport.

Our graph this month, instead of our usual quantitative chart, is a geographical map representing the location of all existing cross-river ferries or punts over Australia's largest river - the Murray. That section of the Murray River down-steam of Lake Hume is illustrated by the thick line whilst other rivers (Darling, Murrumbidgee and Lachlan) by thinner lines flowing in from the North. The Murray flows Westward and forms the border between New South Wales and Victoria, then for a short distance forms the border between Victoria and South Australia. After entering South Australia it turns Southwards at Morgan and flows to Lake Alexandrina then into the Southern Ocean near Goolwa.

The majority of ferries are in South Australia where the river is at is largest and most costly to bridge. The ferries (or probably more correctly punts) in South Australia are operated by the SA Department of Transport, and are principally to carry road vehicles, although pedestrians are also carried. All ferries are advertised as operating 24 hours per day. Ferries exist at Lyrup, Waikerie, Cadell, Morgan, Swan Reach, Walker Flat, Purnong, Mannum, Tailem Bend and Wellington. There is also a ferry across the mouth of Lake Albert at Narrung. A similar ferry has been decommissioned since the opening of the controversial bridge between Goolwa and Hindmarsh Island in early March 2001. Until 1997, a dual ferry operated at Berri (just west of Lyrup), until a road bridge was constructed. Road bridges over the Murray exist at a handful of locations in SA and in all or most cases these replaced ferries across the Murray. For example at Blanchetown (between Swan Reach and Morgan) until a bridge was built in 1964, as well as at Kingston-on-Murray, Paringa and at the obviously named Murray Bridge.

Further upstream, the Murray is narrower and easier to bridge, and only two ferries remain spanning the river in the NSW/Victoria border section. These are at Speewa (just west of Swan Hill) and at Wymah on Lake Hume east of Albury. These much smaller vessels than found in SA are both operated by the NSW RTA, and cater primarily for local residents going about their daily business. Unlike the SA ferries which operate 24 hours, according the NSW RTA web site, the Speewa ferry operates 7 am to 9 am only. These two unassuming conveyances sit alongside the much more glamorous "Spirit of Tasmania" and "Devilcat" as Australia's remaining regularly scheduled interstate water transport.