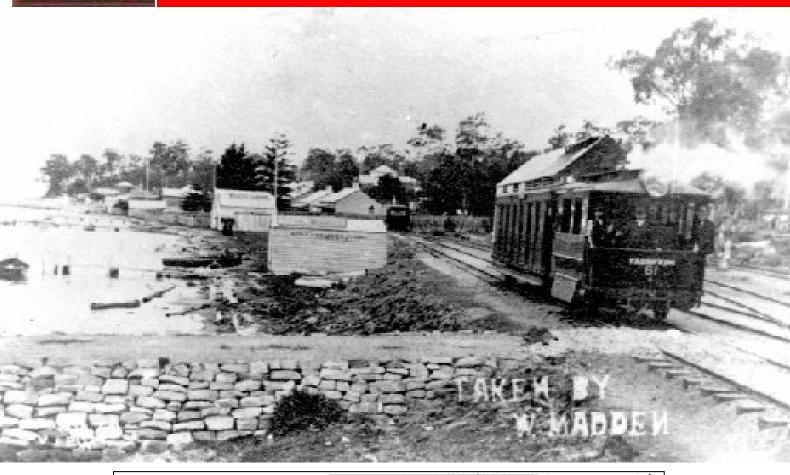


# The Times

October 2007

A journal of transport timetable history and analysis





No 63.

NEW SOUTH WALES TRAMWAYS.

# WORKING TIME-TABLES, STEAM SERVICES, WEST WALLSEND AND SPEER'S POINT LINES.

FROM 15TH SEPTEMBER, 1929.

Each Employee concerned in the running of Trams must carefully examine this Table, and report any inaccuracies.

E, J. DORAN.

Traffic Manager

SYDNEY: ALPRED JAMES KENT, I.S.O., GOVERNMENT PRINTER

\*30628 Cover Colour - Green, 100...

1929,

Inside: 8-Hour Day picnic at Speers Point
The Lunatic Express
Buses in Perth's Southern Suburbs

RRP \$2.95 Incl. GST

### The Times

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### On the front cover

Steam motor No 51 hauls two cars away from the terminus at Cockle Creek towards Wallsend, not long after the Speers Point line opened. Like some other steam tram lines in NSW such as Sans Souci, holiday traffic was the mainstay of the Speers Point line. On a busy summer holiday morning up to three tram sets of 3 cars each would set forth from Wallsend at 1 minute intervals, heading for Cockle Creek and thence to either Speers Point or the "bush" terminus at West Wallsend. In this issue we review a Working Time Table for this last of the steam lines in 1929, focusing our attention on the special holiday traffic.



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The Times welcomes artic

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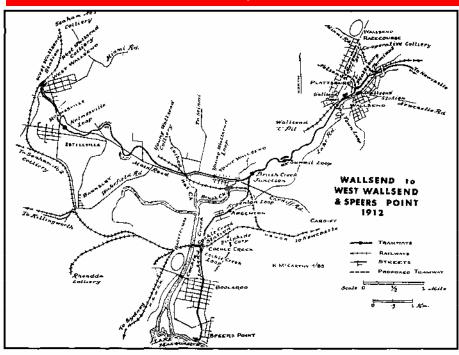
range of views on timetabling matters.

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### Taking the steam tram to the 8-Hour Day picnic

On the shores of Lake Macquarie, the Speers Point picnic ground was the ideal place for an outing. Better yet— you could get there by steam tram! **GEOFF LAMBERT** explains.



ustralia and New Zealand had some rather unusual street tramway systems— think of Leonora, Rockhampton and Wanganui, for instance. But few were so exotic as those in the hinterlands behind Newcastle. Here one could find Australia's only true 'Interurban' in the North American stylesteam and electric cars gliding through the countryside and forest. Few travellers on today's Sydney to Newcastle Expressway would realise that their path crosses that of a long-gone tramline and, even those who do realise it are hard pressed to determine where in the forest those paths cross.

Aboriginal people had called Speers Point Milloba or Biddaba The earliest known white settler was R. Sadleir who occupied the land early in the nineteenth century. In 1828, William Brooks selected 1280 acres on the eastern bank of Cockle Creek and which encompassed the present day townships of Boolaroo and Speers Point. He called it Lochend. In 1843 Brooks opened the Lochend Colliery and began mining coal at the foot of the hills. The coal was carried by a tram to a jetty at Speers Point. William Speer, a wealthy businessman and an alderman from Sydney acquired part of Brooks' land in 1870. Soon after 1870 William Speer built a dairy. Prior to 1874 a citrus orchard was cultivated near the lakeside. In 1887 a Mr. Ryan, the manager of Speer's estate was the only resident in the area. The first subdivision was in 1902 and created allotments bounded by Main Road, Council Street, Albert Street, Lakeview Street and the Esplanade.

The story of the entire Newcastle tramway system has been covered in exemplary fashion in Keenan, McCarthy and Willson's book Tramways of Newcastle. This contains a complete history, including much on the timetabling of the network, a good deal of which is reproduced here. We are concerned here with the Speers Point and West Wallsend lines- almost the last to open and the first to close. A network map of the area concerned appears above. As can be seen, not only was the Newcastle area riddled with tram lines, it was riddled with railway lines as well. A tram passenger travelling from Newcastle to either Speers Point or West Wallsend was liable to encounter half a dozen railway lines- many of them private coal lines, but some carrying passengers in competition with the trams.

The Newcastle tram system began as a steam tram line between Newcastle city centre and the outer suburb of Plattsburg (Wallsend), opened in 1887. In April, 1894, two branch lines were opened, one to Glebe and one to Tighes Hill, the latter extended to Mayfield in 1901. These were followed by branch lines to Adamstown in 1900, Merewether Beach in 1903, and Newcastle Racecourse in 1907. In 1912, a line was opened to Carrington, branching from the Mayfield line. This was followed

by another branch to Maryville, opened in 1914 and a branch to Waratah in 1915. The Maryville Line was extended to Port Waratah to service the BHP Steelworks in 1916 being the last major construction for the Newcastle system with the exception of a line to Port Waratah Wharf in 1920 which did not operate beyond a number of trial runs before being abandoned and removed

West Wallsend had been served by a rather sparse private rail service from Cockle Creek since 1888. Local pressure to extend the more convenient steam tram system from Wallsend to West Wallsend commenced in 1897 and lasted for ten years before it was successful. The 7½ mile single-track line took 18 months to build and was opened in September 1909. Upon opening, the line was provided with a 90 minute interval service from Newcastle on weekdays and a 4-hour interval service on Sundays. The Wallsend line itself had a 30 minute week-day service at this time; the West Wallsend trams providing one-third of it.

Pressure for a Speers Point branch began about 6 months before the West Wallsend line opened and this branch was eventually opened, after a delay due to shortage of rolling stock, in January 1912. The Wallsend depot was extended at the same time. A ninety minutes service, connecting with the West Wallsend services at Brush Creek was provided.

The Speers Point line left the West Wallsend line at Brush Creek Junction and headed south, with a crossing loop next to Cockle Creek railway station. Most passengers to Speers Point caught the train to here, then the tram, saving almost half an hour in travel time. Some trams, in consequence, shuttled between Cockle Creek and Speers Point.

From 1918, the through trams to West Wallsend were replaced by a shuttle service from Wallsend, meaning that Speers Point passengers had to change trams twice. This became "locked in" in 1926, when the line to Wallsend was electrified. but the lines beyond it were not. By the time of the timetable reviewed here, Speers Point was provided with 27 trams per day (Mon-Sat) between 6:30 a.m. and 11:00 p.m., or an average interval of a tad over 30 minutes. Of these 27 service, 6 were Speers Point-Cockle Creek shuttles and one, unusually, was a Cockle Creek-Brush Creek shuttle. There were only 20 services on Sundays, principally because

### WEST WALLSEND AND SPEER'S POINT LINES.

#### SPECIAL INSTRUCTIONS.

Cockle Creek Railway Station—Drivers and Conductors on Speer's Point trams must make themselves familiar with the running of the trains, and must wait arrival of trains as long as consideration for the return trip will allow.

Every effort must be made to meet trains and West Wallsend trams.

#### **Destination Colours**—

Speer's Point-White and Red Quartered.

West Wallsend-White and Red.

Down West Wallsend trams connecting with trams for Speer's Point to show West Wallsend on front car, and Speer's Point on second and third cars.

Connections.—Great care must be exercised to make proper connections with trains at Cockle Creek and trams at Brush Creek Junction, or Wallsend Depôt, respectively. Drivers must wait up to limit of time which will enable them to leave the outside terminus on time the following trip.

#### STAFF SECTIONS.

Speer's Point Line.—Brush Creek Junction-Cockle Creek Station, No. 1. Cockle Creek Station-Speer's Point, No. 2.

West Wallsend Line.—Plattsburg Terminus-Wallsend Depôt, No. 4. Wallsend Depôt-Pit Town Loop, No. 5.

Pit Town Loop-Summit Loop, No. 6. Summit Loop-Brush Creek Junction, No. 7 Brush Creek Junction-Young Wallsend Loop, No. 8. Young Wallsend Loop-Holmesville Loop, No. 9. Holmesville Loop-West Wallsend, No. 10.

When only one tram is running between Brush Creek Junction and West Wallsend or Speers Point, Staffs Nos. 8, 9 and 10, or 1 and 2 respectively, (only) may be carried together, but must be left in proper boxes on last trip daily, or when required for another tram.

### STOPPING PLACES

SPERE'S POINT LINE—THEO SECTION.—Brush Creek Junction, a Young Wallsend Crossing, a Waratah-st., Argenton, a Golf Links. Cockle Creek Station. FCURTH SECTION—First. Third, Sixth, and Eighth sts., Council st., Speer's Point and Lake Macquarie Park (Terminus).

West Wallsend Line—First Section.—Nelson-st., Kemp-st., Wallsend Depôt, Pit Town Loop, Ganney Rd., "Woodlands," Wallsend "C" Pit. Second Section—Summit Loop, Brush Creek Junction. Third Section—a Miller's Wharf, Young Wallsend Loop, a Thomas-st., Minmi Rd., Young Wallsend Crossing, Buckland's Store Young Wallsend Colliery (Cooranbong Rd.). Fourth Section—Sandy Hollow (Cardiff kd.) Fifth Section—Estellville Holmesville, Watkins-st., Teralba Rd., Brown-st., and West Wallsend Terminus.

4	A	.M.	M	ondays	to Frida	ys.		P.M.		WES	T WA	LLSEN	<b>₹</b> ]
No.	14 Shed.	1 Shed.	12 Shed.	12	12	12	12	12	23	12	23	12	
1 Wallsend Depot dep.	w 5 35	w 6 5	w 6 27	8 2 5 8	10 19	11 40	1 0	2 25 T	3 28	4 11	4 41	5 33	
2 Pit Town Loop ,,	•••		8					 T	 5	 8	 8		
3 Summit Loop ,,	T	т	B 		8			 T		 8	 9	 8	
4 Brush Ck. Jet. "	5 48	6 18	6 <b>40</b>	8 38 s	10 32	11 53 8	1 13 s	2 38	3 41	4 2 4 8	4 54	5 46	
Speer's Pt. Tram dep.			6 40	8 42	10 32	11 53	1 13	2 38				5 46	
5 Y'g Walls'nd Lp. "	 8		 S	 S		 S	 S	 8		 8		 8	
6 Holmesville ,,	 s	•••	8	 S	 8	 8	 g	 8	•••	 S		 s	
7 West Wallsendarr.	6 12	cc	7 4	9 2	1056	12 17	1 37	3 2	SP SP	4 48	SP	6 10	
7 West Wallsend dep.	6 "14		7 19	9 2 4	11 0	12 20 s	1 44	3 17 s		4 50 8		6 14 8	
6 Holmesville L'p. "	 s	•••	 8	• 8	 S	··· 8	 s			 8		s	
5 Y'g Walls'nd Lp. "	 s	***	<u>s</u>		 8	8	 s	 8		8		 8	
Speer's Pt. Tram arr.		•••	7 27	9 48	11 23	••	2 7	3 41		5 12	•••	6 37	
4 Brush Ck. Jctdep.	6 38	5 <b>3</b> 8	7 43	9 48 s	11 24	12 44	2 8	3 41 8	4 2 4	5 14 8	·	6 38	
3 Summit Loop "	•	r.	 s	8	 8		 s	 s	 g	 s		 8	
2 Pit Town Loop "		 T	 S	•••	 8		 5		s	 8		 S	
1 Wallsend Depotarr.	SP	6 51 Shed.	7 5 6	s 10 · 1	11 37	1257	2 <b>21</b>	3 5 4	4 37	5 27		6 51	19.00

the Sunday service did not start until after church hours— otherwise the frequency was not too different from week days. Most trams still connected with the trains at Cockle Creek and the WTT showed these connections.

### **Speers Point Holiday Services**

Almost from the day the line opened Speers Point began to attract large holiday crowds. Indeed the opening of the line was timed to enable the line to be "run-in" for the first big holiday event on Anniversary Day (Australia Day) two weeks later.

For two of the public holidays during the warmer weather months in 1912; namely Easter Monday and Eight Hour Day, the 30-minute service between Parnell Place (Newcastle) and Plattsburg was extended to and from Wallsend Depot to provide connections to additional shuttle trips. These operated to and from Speers Point as well as West Wallsend to maintain the regular hourly service to West Wallsend as the direct Parnell Place - West Wallsend service was diverted to run to and from Speer's Point. The special services on these and subsequent holidays when heavy traffic was attracted to Speers Point usually commenced about 8 am and continued for up to 12 hours before the normal sparse evening service was restored. On the Boxing Day Holiday in 1912 the normal morning service from Parnell Place was diverted to Speer's Point instead of West Wallsend. West Wallsend was served by additional trips running one minute ahead of the diverted trips while extra trips were provided for return traffic from Speer's Point during the late afternoon and early evening.

The Speer's Point service continued to attract large crowds on major public holidays and probably in anticipation of the heavy traffic carried on the Anniversary Day Public Holiday in 1912 being repeated in 1913, a new crossing loop was provided at Argenton. It was completed on January 20 ready for use on the Anniversary Day Holiday one week later. However, the special timetable for that holiday was constructed without the need to use Argenton loop for crossing purposes. Consequently, it was never brought into use with the

branch line remaining as two staff sections divided at Cockle Creek loop throughout its life.

Commencing on Anniversary Day, January 27, 1913, and on subsequent holidays on Anniversary Day, the Eight Hour Demonstration Day in early November and on Boxing Day each year until the end of 1915, as well as on New Years Day 1915, the regular service was replaced during the day by the following two special services. All Parnell Place-Plattsburg trips as well as the hourly West Wallsend service were replaced by a direct 30 minute service between Parnell Place and Speer's Point. Two additional trams provided a direct hourly cross country service between West



LINE.	1120110	lays to	Fildays			P.M	•			_
No.	23	12	19	23	23	14	23	23		
		F	FE	F	FE		F	FE		
1 Wallsend Depet dep.		7 s	7 4	8 27	8 3 0 8		10 9	10 10 8	1	
2 Pit Town Loop ,,		 5		 8	 S	•		 g	2	
3 Summit Loop ,,		 S	s 	8 3 5 8	. 8 3 8				8	
4 Brush Ck. Jet ,,		7 17 S	7 17 s	8 40	8 43		10 22	10 23	4	
Speer's Pt. Tram dep	•••	7 20	7 20	8 42	8 44	•••	10 25	10 25		
5 Y'g Wallsend Lp ,		 8	 8	 S	 s		 g		5	
6 Homesville ,,				*** 8			 s	s 	6	
7 West Wallsendarr		7 41	7 <sup>8</sup> 41	9°4	9 <sup>8</sup> 7		10 46	10 47	7	
7 West Wallsend dep	8P	8 6	8 E 9	9 <sup>F</sup> 18	9 F E	SP	10 50	10 50	7	
6 He mesville L'p. "			s 		8 				6	
5 Y'g Walls'nd Lp. "		 8	 8	8  8	8  8		 8	8  8	5	
Speer's Pt. Tramarr.		8 20	8 11	9 38	9 34		11 14	11 14		
4 Brush Ck. Jctdep.	7 38	8 3 0 8	8 3 3	9 42	9 3 6 8	11 14	11 14	11 14 8	4	
3 Summit Loop ,,	•••	8 3 5	8 3 8	8		T			3	
2 Pit Town Loop "		T	т •	8	s  s		s •••		2	
1 Wallsend Depot arr.	* 7 51	T <b>8 43</b> Shed.	8 46 shed.	s 9 5 5	s 9 49	11 2 7 Shed	s 11 27 Shed.	8 11 27 Shed.	1	

SPEER'S POINT	LINI	E.	A	.M.					P.M		Mond	ays to	Fridays	. 9	9'
No	1	14	14	14	14	14	14	14	14	14	14	14	23	14	
West Wallsend JUp			•••		•••		9 48		11 24	12 44	2 8	***	3 41		
Tram Down		6 40	•••		8 38			10 32	II 53	1 13	2 38	•••		•••	
Brush Creek Junet dep.	s	6 w <b>4</b> 0	7 29		8 4 2 s		9 5 0 s	8	11 53 8	1 13	2 38		3 41	4 <sub>s</sub> 1	
Cockle Creekarr.	6 27	6 49	7 38		8 51	••	9 59	10 41	12 2	1 22	2 47	•••	3 5 <b>0</b>	4 10	
To Newcastle dep.		7 17	8 5	•••			•••	‡10 44		I 33‡	3 17			4 15	
rains From " dep.	6 48	‡7 I2	7 36		9 20				12 26		3 2			‡4 11	
To " arr.	•••	·-·	7 14	8 3	8 35	•••	•••	•••	11 33	‡1 31 {	•••	•••	3 15	4 13	
Cockle Creekdep.		6 45	7 33 7 39	8 3	8 51	9 I7 9 18	9 59	10 47	‡11 36 12 2	1 34	2 401	2 59 3 11	3 50	14 II 4 <b>♦1</b> 5	
Speer's Pointarr.		6 5 8	8	8 12	ន	8	s	10 56	12 ° 11	1 43	2 57 2 57	3 20	3 5 9	4 24	-
Speer's Point dep.		7 O	7 5 2	8 15 8	9 4	9 3 0	10 11	11 5	12 25	1 49	3 0	3 23 8	4 1	4 27	
Cockle Creek arr.		7ຶ 9	8 <i>1</i>	8 2 4		9 39	10 20	11 14	1234	1 58	3 9	3 3 2	4 10	436	
To Newcastle dep.		7 17	8 5	8 37		•••	‡ <b>t</b> o 44	11 35			3 17	•••	4 15	•••	
rains From ,, dep.		‡7 12 } 7 36 }			9 20			<b>‡</b> 11 37	12 26	<b>1</b> 2 41	•••		‡4 12	4 51	-
To , arr.	6 10	7 14	•••	8 3 t 8 to				10 44		‡1 31	•••	3 15	4 13	•••	
From ,, arr.	6 5	6 45		7.33		9 17				‡1 4		2 59	‡4 11		
Cockle Creekdep	6w29	7 18	•••	8 2 4 s	•••	9 39	10 20	11 14	1234	1 58		3 3 2 8	4 15 8	•••	
Brush Creek Junetarr.	6 38	7 27		8 33		9 48	10 29	11 23	12 43	2 7		3 41	4 24		
West Wallsend Jup		7 43	•••	•••		9 48	•••	11 24	12 44	2 8	•••	3 4 <sup>I</sup>	•••		
Tram Down	6 41			8 38			10 32	11 53	1 13	2 38			4 24		
	WD					,							WD	1	-

\$ Sydney train.

No. 14 on the 4'15 p.m. trip ex Cockle Creek for Speer's Point to wait arrival of train due at Cockle Creek at 4'11 p.m. If train is more than 10 minutes late, tram to make connection, and the 4'27 p.m. trip ex Speer's Point, and 4'40 p.m. trip ex Cockle Creek to be cut out.

LINE.			1	A.M.			Satur	days.		P	.M.		11	
No.	1	11	14	14	14	14	14	14	14	23	14	23	23	
West Wallsend {Up	•••	6 39		•••	8 38		9 48		11 24	12 44		•••	2 8	
Tram Down		6 40			8 38	•••		10 32	11 53		1 13	•••	2 38	
1 Brush Creek Junet dep. 2 Cockle Creekarr.	8	6 49	7 29 7 38		8 42 8 51	***	9 5 0 9 5 9	10 32 10 41	11 53 12 2	12 44 12 53	1 13 8 1 22	***	2 38 8 2 47	
f To Newcastledep.	<u> </u>	7 17	8 5		•••			‡10 44	12 39	I 22	1 33‡			
Trains From ,,dep.	6 48	‡7 12	7 36 7 14	8 3	9 20				12 26	12 57 \$12 37	I 45	;;; 31	3 2	
From ,,arr.		6 45	7 33 <b>7 3 9</b>	8 3	 8 51	9 17 <b>9 18</b>	9 5 9	1047	‡11 36 12 2	12 54 12 57	1 22	1 42 1 44	2 48	
3 Speer's Pointdep.		6 5 8	7 48	8 12	s	9 27	10 8	10 5 6	12 S	1 8 6	s	1 53	2 57	
Speer's Pointdep		7 o	7 5 2	8 15 s	9 4 s	930	10 11	11 5	12 25	1 9	1 35	2 15	3 1	-
2 Cockle Creekarr.		7 9	8 1	8 2 4	9 13		10 20	11 14	1234	1 18	1 44	2 2 4	3 10	
To Newcastledep.	•••	7 17	8 5	8 37		•••	‡10 44	II 35	12 39	1 22 1 33‡}	2 0	2 41		
Frains From ,,dep.	·	\$7 12 ) 7 36 }			g 20			‡II 37	12 26	1 45	I 45			
То "агт.		7 14	•••	8 3		•••		‡:0 44		•••	‡1 31	1 58		1
From ,,arr. 2 Cockle Creekdep.	6 5	6 45 7 18	<u> </u>	7 33 <b>8 24</b>		9 <b>17 9 39</b>	10 20	11 14	1234		1 42	2 24		
Brush Creek Junetarr	s	7 27		8 3 3	•••	9 48	10 29	11 14 8 11 23	12 43	•••	1 53	2 3 3		
West Wallsend Up		7 43		8 38	***	9 48		II 24	12 44					

Wallsend and Speer's Point, shunting at Brush Creek Junction where convenient connections were made in each direction for passengers travelling between West Wallsend and Parnell Place. The busy holiday traffic combined with the shunting of the latter service was probably the reason for providing a second crossing loop forming three tracks at Brush Creek Junction on February 27, 1915. Unfortunately, the direct West Wallsend - Speer's Point service operated for the last time 10 months later, making the second loop largely redundant although it remained available for use if required.

As well as operating on Easter Monday 1915, this timetable became the major summer season holiday timetable from January 1916, as the effects of the First World War resulted in overall reductions in holiday services for the next three years.

Commencing on Easter Monday 1914, another special holiday timetable was introduced which catered for the "between seasons" holidays which did not justify the frequent service operated during the summer season. These became known as the "Winter Holidays" timetable, as opposed to the "Summer Holidays" timetable. In both cases, the "Holiday" referred to declared public holidays, rather than "vacations".

The Speer's Point line was also host to numerous organised picnic parties who either travelled by train to Cockle Creek Station and then by tram or travelled the whole way by tram. In addition, the line attracted some additional patronage when race meetings were held at the nearby Boolaroo Racecourse.

From the New Years Day Holiday in 1922, by which time unrestricted private bus competition was having an effect on patronage, holiday services on the Speer's Point and West Wallsend lines only operated between Wallsend Depot and the outer termini, usually at hourly intervals during the day to both termini on the major



holidays. The "golden decade" between 1912 and 1921 when the steam trams carried the majority of the thousands of public holiday travellers to and from Speer's Point, when the picturesque locality came alive with people, was gone forever.

At the time of the WTT partly reproduced here (15-Sep-1929), the Speers Point line had only 14 months of life left in it, yet there was still provision for holiday traffic worth admiring. On summer holidays such as 8-Hour Day, it required 5 trams to maintain the service (shown by the run numbers at the top of the timetable columns). Note that, in contrast to regular services, the holiday timetable combined the Speers Point and West Wallsend line into a single table.

Generally the service ran by each motor had a turn-around time of about 90 minutes, which included a lay-over of 10 to 15 minutes at Speers Point and West Wallsend. To a large extent, this was a "tram only" service for excursionists, so the usual train connections at Cockle Creek for "commuters" did not feature in the tables.

On such days 29 trams ran to Speers Point

and 19 to West Wallsend- or 96 trams in total over the single track section between Wallsend and Brush Creek. Such heavy traffic, particularly the closely-spaced morning outbound runs required the use of Staff Tickets—"T" in the timing column to shoe-horn the services into the track. More than one Ticket in same cases- look at the services departing from Wallsend at 1 minute intervals at 8:56. 8:57 and 8:58. This seems like a perilously short time interval, especially when compared with what was allowed on the NSWGR. The Tramways were rather relaxed about these things- it was allowable for a tram to carry all the section staffs at once in quiet times!

The service shown on Winter Holidays was only somewhat more subdued, with nearly the same number of Speers Point services, but a reduced West Wallsend service and not the sudden morning rush at 1 minute intervals.

The West Wallsend and Speers Point lines were officially closed in November 1930, but the Speers Point line saw occasional use until June, 1931 when it was fully closed. In 1937 the government bus service took over and operated two routes from Speers Point to Newcastle: one through Cardiff and one through Charlestown. Closure of the rest of the system and replacement by bus services commenced in 1938 and the final Waratah Line closed on the 10th June, 1950.

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No	Shed.	Shed.	1	Shed.	2	1	Shed.	Shed.	3	2	1	5	3
Parnell Place dep.	•••	••	•••	•••	•••	•••	8 O	8 0	•••		•••		
1 Wallsend Depot "	5 36	6 30	6 59	7 22	7 58	8 28	8 56	8 57	8 5 8	9 30	9 58		10 30
2 Pit Town Loop "	T		т	s •••	s	s 	T •••	т	s •••	S	s		8
s Summit Loop	т	S	т	7 <sup>8</sup> 30	g •••	s 	T	т		9 38			10 38
4 Brush Creek	5 <sup>T</sup> 49	6 43	7 <sup>s</sup> 12	7 <sup>T</sup> 34	8 · 11	8 41	9 <sup>T</sup> 11	9 <sup>T</sup> 11	9 <sup>S</sup> 11	9 <sup>T</sup> 43		10 13	10 43
5 Young Wallsend Lp. ,,	s 		nes.	8 					s				
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### Through East Africa on the Lunatic Express

Travelling north on Cecil Rhode's Cape to Cairo line, we journey through three countries of what used to be called Darkest Africa. By GEOFF LAMBERT

y 1972 edition of Jane's World Railways tells me that Africa had 80,000 km of railways. This doesn't seem like very much, but it is quite a bit bigger than Australia. Of this 80,000 km, 5,800 km was owned by the East African Railways and Harbours—the lines in Tanzania, Kenya and Uganda. This month we journey through these three countries in our quest to travel by timetabled train from the Cape to Cairo.

### **Pre-colonisation history**

The name 'Tanganyika' is derived from the Swahili words tanga meaning 'sail' and nyika meaning an 'uninhabited plain' or 'wilderness'. At its simplest it might therefore be understood as a description of the lake — 'sail in the wilderness'. Tanganyika is the cradle of mankind. In 1959 in the north of the country, in the Olduvai Gorge, Dr. Louis Leakey discovered the fossilized remains of Zinjanthropus calculated to be 1.75 million years old, the forerunner of modern man. South of Olduvai Gorge, a trail of hominid foot prints made 3.6 million years ago were discovered at Laoteli. Tanzania is currently the home of about 126 African tribes, the majority being of Bantu origin who migrated into Tanzania from West and Central Africa. While in Tanzania, they assimilated most of the people of Khoisan and Cushitic origin who had been there since the 3rd and 1st centuries BC respectively.

Cushitic-speaking people from northern Africa moved into the area that is now Kenya beginning around 2000 BC. Arab traders began frequenting the Kenya coast around the 1st century AD. Kenya's proximity to the Arabian Peninsula invited colonization, and Arab and Persian settlements sprouted along the coast by the 8th century. During the first millennium AD, Nilotic and Bantu peoples moved into the region, and the latter now comprise three-quarters of Kenya's population.

The earliest human inhabitants in a contemporary Uganda were hunter-gatherers and Manesh. Remnants of these people are today to be found among the pygmies in western Uganda. Between approximately 2000 to 1500 years ago, Bantu speaking populations from central and western Africa migrated and occupied most of the southern parts of the country. The migrants brought with them agriculture, ironworking skills and new ideas of social and political organization, that by the fifteenth or sixteenth resulted in the development of centralized kingdoms, including the king-

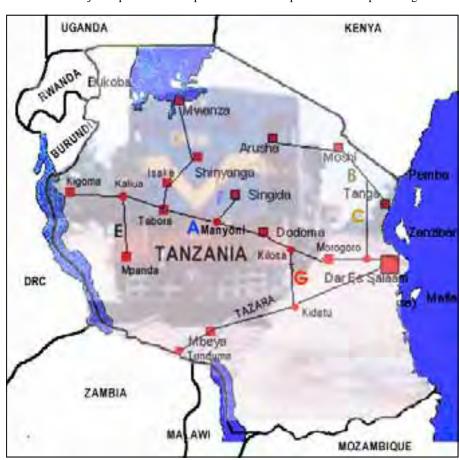


doms of Buganda, Bunyoro-Kitara and Ankole. Nilotic people, including Luo and Ateker entered the area from the north probably beginning about AD 100.

East Africa during the 19th and early 20th century became a theatre of competition between the major imperialistic European

nations of the time. During the period of the *Scramble for Africa*, almost every country comprising the present day East African region became part of a European colonial empire.

The British Empire set foot in the region's most exploitable and promising lands



#### Kapiri Mposhi - Dar es Salaam (Tanzania) Classes: 1,2,3, M 1,2,3, R 1.2.3. R Kapiri Mposhi (New) depart 16:00 Tuesdays & Fridays 17:00 Mondays 882 Nakonde arr / dep 09:09 Wednesdays & Saturdays 12:00 next day 883 Tunduma (frontier) 10:29 Wednesdays & Saturdays arr / dep 1003 Mbeya arr / dep 14:28 Wednesdays & Saturdays xx:xx Wednesdays 1852 Dar es Salaam arrive 12:35 Thursdays & Sundays xx:xx next day? x = time not known, please check locally.

acquiring what is today Uganda, and Kenya. The Protectorate of Uganda and the Colony of Kenya were located in a rich farmland area mostly appropriate for the cultivation of cash crops like coffee and tea, as well as for animal husbandry with products produced from cattle and goats, such as goat meat, beef and milk. Moreover this area had the potential for a significant residential expansion, being suitable for the relocation of a large number of British nationals to the region. Prevailing climatic conditions and the regions' geomorphology allowed the establishment of flourishing European style settlements like Nairobi and Entebbe. Independence was granted to Kenya in 1964, after the Mau-Mau uprising and to Uganda in 1962

The German Empire gained control of a large area named German East Africa, comprising present-day Rwanda, Burundi and the mainland part of Tanzania named Tanganyika. In 1922, the British gained a League of Nations mandate over Tanganyika which it administered until Independence was granted in 1961. Following the Zanzibar Revolution of 1965, the independent state of Tanganyika formed the United Republic of Tanzania by creating a union between the mainland, and the island chain of Zanzibar.

Inter-territorial co-operation between Kenya, Uganda and Tanzania was first formalised in 1948 by the East African High Commission. This provided a customs union, a common external tariff, currency and postage; and also dealt with common services in transport and communications, research and education. Following independence, it was replaced by the East African Common Services Organisation. In 1967 this was superseded by the East African Community. This body aimed to strengthen the ties between the members through a common market, a common customs tariff and a range of public services so as to achieve balanced economic growth within the region. The East African Community collapsed in 1972 following political differences between the member states.

### Railway History in East Africa

Unlike railways to the south, most railways in East Africa were built for agricultural and developmental purposes. For the first three quarters of the 20th Century, they consisted of a series of East-West trending lines connecting the Indian Ocean

with the interior, particularly the large navigable lakes. There were two such railways in Tanganyika (the Tanga and Central lines) and one in Kenya-Uganda. There was also, for a time, another line in southern Tanganyika, built to serve the infamous Ground Nut Scheme—one of the great British follies of all time.

None of these lines was ever really conceived in terms of Cecil Rhode's Cape to Cairo Railway. For a start, they were of the wrong gauge being metre instead of the 3'6" "Cape Gauge". They also ran mostly east-west and so could not advance the Cape to Cairo route on its northward push. Those who still yearned for a Cape to Cairo railway after the First World War generally conceived of it as heading north from present day northern Zambia, leapfrogging via rail, river and lake connections until the Nile Valley was reached. A few scraps of this railway were built and certainly the lakes carried train ferries which would have been part of the Cape to Cairo had it materialised. As late as the 1930s, the British-based Royal Africa Society continued to busy itself thrashing out the most acceptable route for a railway across the high plateaus.

### **Tanganyika**

Colonial Germany built the two major railways in German East Africa. In the north what became known as the Tanga line pushed north west from 1893, aiming for Lake Victoria, but never getting further than Arusha, somewhat west of Mt Kilimanjaro. Further south, the Central Line was somewhat more successful-it managed to reach Kigoma on Lake Tanganyika and a branch running north got to the shores of Lake Victoria. These two main lines remained isolated until a connecting line (the "Link Line", which we shall take) was built in 1955. The Tanga line was connected to the Kenya-Uganda Railway at Voi by the British during the First World War, as part of the military campaign against Germany.

The TAZARA Railway (also called the *Uhuru Railway*, from the Swahili word for freedom, and the *Tanzam Railway*) was built in the 1970s by the Tanzania-Zambia Railway Authority (abbreviated to 'TAZARA') to serve landlocked Zambia as an alternative to rail lines via apartheid-controlled Rhodesia and South Africa.

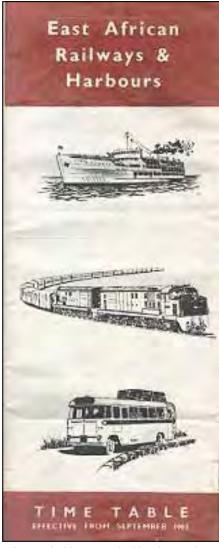
The railroad was a turn-key project fi-

nanced and executed by the People's Republic of China, as its first overseas aid project. The line starts at the port of Dares-Salaam (where the Tanzanian Railways Central Line also starts) and crosses Tanzania in a south-west direction. The line crosses the TANZAM highway at Makambako and runs parallel toward Mbeya and the Zambian border, enters Zambia, and links to Zambia Railways at Kapiri Mposhi. Total length is 1,860 km and the final altitude is 1,400m. The line is 3'6" gauge to match Zambia Railways. Construction was started in 1970 and operation commenced six years later. A link line was later put in to the Tanzanian Railways metre gauge system at Kilosa, and a transship station built there.

Initially, this line did what it was designed to do and carried ore traffic by a route avoiding Rhodesia and South Africa. But when Rhodesia became Zimbabwe, and even more so after the fall of Apartheid, the political justification for routing the copper traffic this way vanished. In addition, the line, its locomotives and its rolling stock deteriorated rather badly and rather quickly after completion, thus reducing the capacity considerably.

### East African Railways and Harbours

The Lunatic Express was the name given to a railroad built by the British colonial government in East Africa during Victorian times. It was defended in the British Parliament by Sir Gerald Portal who felt all the right reasons were there, the need to ensure protection of the source of the Nile from Britain's enemies, a great potential market for British goods, the huge traffic expected, and a revolutionary effect in settling the region. Political resistance to what the papers called a gigantic folly surfaced immediately, including the Liberals' pronouncement that the Government had no right to drive a railway through country owned by the Masai. Estimated at £3 million in 1894 or \$432 million in today's currency, when the books were closed in 1902, the final cost was \$793 million. Construction began in 1895, after a series of false starts due to lack of governmental support, and to changes of government in Britain. It was originally known as the Uganda Railway, although all the construction then being undertaken was in Kenya territory. Twenty-two miles of line had been completed by the end of



1896, Nairobi was reached in 1899, and on the 20th December 1901 the first train reacted the shores of Lake Victoria from Mombasa, a distance of 587 miles.

Did it deserve to be called the Lunatic Express? The wild nature of it - shaky looking wooden trestle bridges, enormous chasms, prohibitive cost, hostile tribes, men dropping by the hundreds from diseases, and man-eating lions pulling railway workers out of carriages at night -Lunatic Express seemed to fit. However, an early traveler, Winston Churchill, had the last say. "The British art of 'muddling through," he said was "here seen in one of its finest expositions. Through everything - through the forests, through the ravines, through troops of marauding lions, through famine, through war, through five years of excoriating Parliamentary debate, muddled and marched the railway.'

The East African Railway system was, until amalgamation on the 1st May 1948, two separate systems: the Kenya and Uganda Railway, and the Tanganyika Railway. In 1926 'The Uganda Railway' became 'The Kenya and Uganda Railways

### DAR ES SALAAM-MOSHI-DAR ES SALAAM

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and Harbours'. With the completion in January 1931 of the section from Jinja, on the north shore of Lake Victoria, to Kampala, this latter city, the commercial capital of Uganda, became linked by rail with the coast at Mombasa.

East African Railways and Harbours (EAR&H), the ultimate corporate entity formed in 1952, had more route mileage operated by water transport than by rail transport. On the Nile and Lakes Tanganyika, Victoria, Kioga and Albert, ferry routes totalled 6,000 miles. Of rail, there was only 3,800 miles. It was possible to reach Lake Tanganyika by rail from 1914, and Lake Victoria by 1928 but the use of the waterways to link the various bits of railway for the Cape to Cairo route was somewhat hindered by rapids and waterfalls in the rivers. However, train ferries were built to ply Lake Victoria, linking the Tanganyika Railways at Mwanza, with the Uganda Railway at Jinja. Other lakes in the region such as Lake Tanganyika, Lake Malawi and Lake Albert have used ferries which were sometimes linked to railways, but these ferries were not train ferries *per se*. Many ferry service were later to be made unviable by the growth of water hyacinth invading from the Aswan Dam in Egypt.

In the 1960s, East African Railways and Harbours began to extend its Soroti branch northwest to Pakwach on the Nile, partly to replace the outdated steamer service and partly to stimulate the cotton industry. This was probably another piece of folly (like a similar line that ran westward from Kampala for a while) for not only was there little traffic offering at Pakwach, there was little to induce the farmers along the 500 mile route to switch from road transport which was already well established. Transport costs were not a factor in the cotton industry anyway. This line is now closed, although there is talk of mak-

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In the case of an Up train worked by a Garran engine, the engine should be turned at Kane Junction as this type of engine is too long for the turntable at Mostii.

80 and 81 Mixed trains must not incur overtime at intermediate stations attaching or detaching unless authorised by Control. No alls traffic must be picked up on route by these trains. Only perishable, mails, and luggage may be despatched from Voi by 81 Mixed for stations between Voi and Moshi.

ing it the jumping-off point for a railway into the Sudan. Despite recent breathless media releases on "progress", we can assume this line will remain a pipe-dream.

### Along the Tazara line

If Working Time Tables of the TAZARA line exist, none ever seem to have surfaced in my vicinity, nor can reference be found to them anywhere. We shall rely on a Public Timetable- even these are scarce, nor are they very detailed or even complete. The one reproduced on page 11 is not even official and the compilers have had obvious difficulties in assembling all the necessary information.

By all accounts, the journey is still relatively pleasant (for Africa), but seems to be slowly going to the dogs nonetheless. David Eerdmans reported on a reverse journey in October 2006, as follows: The Tazara is a great way to travel. We used it between Dar es Salaam and Mbeya (Zambia) on our way to Malawi. Don't expect a modern, comfortable train, and don't expect the trains to run on time. However, for African standards, the train is actually pretty good and it is an absolutely fantastic way to see Tanzanian countryside, some nice scenery and (if you're lucky) some wildlife. In Dar es Salaam the station is a bit out of town, on the road to the airport. A taxi is the best way to get there. The station reminded me of stations in China - not very surprising, as the line was built by the Chinese in the times when Tanzania was still more or less a communist country. We tried to make reservations online, but that didn't work out. Fortunately it was no problem to make reservations in the station only two days in advance.

There are several classes. We took 1st class, which consists of 4-berth compartments. The train interior again reminded me of Chinese trains - you can even spot some Chinese signs on the train. It was however in a pretty bad state compared to Chinese trains: pretty filthy, and many

windows and doors were broken. Ride quality is absolutely horrible: the train shakes and bounces like I've never experienced before. Our train left a couple of hours late. Just after departure, the friendly train manager came by to say hello to all 1st class travellers. Some time later we got menus from the restaurant there's some great food on the train. In addition, first class passengers have access to a lounge car with comfortable seats, cold drinks and incredibly loud music. It could be a nice place to meet

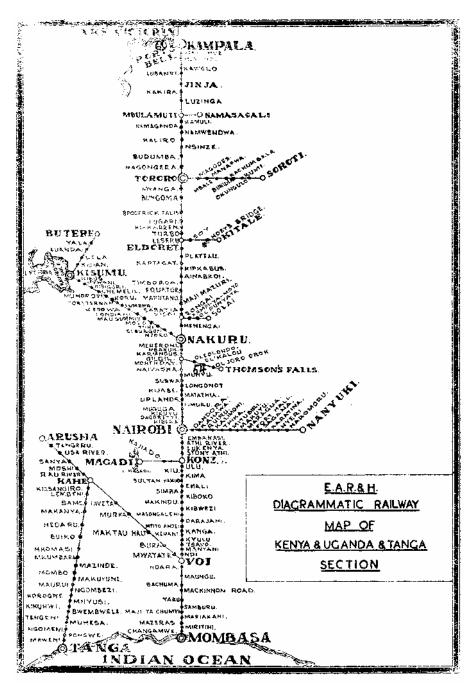
people; that is, if there are people: we were the only ones in the car. Never mind - we enjoyed the train thoroughly; hanging out of the window, waving to the kids in the villages and admiring a great sundown. The scenery near Dar es Salaam is rich and green. Waking up the next morning was quite strange, because now the scenery had changed to a yellow, dry landscape. The villages were quite a shock - very poor compared to the thriving city of Dar es Salaam.

### From Dar to Moshi

The East African Railways and Harbours railway system was fragmented until 1955, when a line connecting the Central Line to the Tanga line was built. The line was probably more symbolic than strategic in nature, for it has never carried much traffic. At the least, it provides an alternative port outlet at Dar es Salaam for the Tanga

Working Time Tables for this line are rather scarce, but one was included in the Tanzania Railways Corporation WTT of 1st March 1987. It shows the schedule for train L05 which runs from Dar to Moshi. To fill in this leg of our Cape-to-Cairo journey, we must catch it all the way to Moshi and will double back to Kahe. We start on the Central line, traverse the 1955

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EMBAKASI	7 06			7 :
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NAIROBI EAST		,		! .
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branch and then cover the greater part of our journey on the Tanga line. The times for our train, however, do not appear in the Central and Tanga line tables, but have a set of tables all to themselves.

On the Central line from Dar to Morogora, there are four goods trains and 1 passenger train daily in each direction. Additionally there are two Goods trains destined for, or coming from, Moshi each day, plus our own passenger train each way. This gives a rather healthy number of 16 trains per day over the Dar es Salaam to Ruvu Junction section, which is about twice the train frequency shown in a 1931 Tanganyika Railways Central Line WTT. We squeeze in between No A36 Goods and A02 Passenger and pull out of Dar at 4 pm.

Our westward route to Ruvu, where we

cross the river of the same name climbs slowly, but manages to wend its way around the nearby mountain ranges. The scenery is "classic African"- a savannah dotted with thorn bushes and occasional marshes.

At Ruvu Junction, we swing north, and run along the western foothills of the mountains which hem in the Ruvu River to the east. It is a 117 mile journey to Mruanzi Junction on the Tanga line, covered entirely in the dark. We meet no trains along the way, although the Southbound Passenger No. L06 meets two. This line is rather lightly built and has deteriorated and been rehabilitated about twice by the time we travel on it. It is subject to road competition, and therefore carries little through traffic and no local traffic at all.

We arrive at Mruanzi at 1:16 am and, without pausing head for Mt Kilimanjaro which lies straight ahead, climbing all the while out of the coastal plains from Korogwe (993 feet) to Moshe (2,500 feet). Along the way we cross two Dar-bound trains.

#### Moshe to Voi

The Kahe-Voi connecting line was conceived as a WWI expedient to give an alternative outlet to the sea for upcountry Tanganyika, then mostly under German control. Because it is not really a "natural' route for passengers or goods, this line sees little traffic in 1951. There is one train a day each way— on Wednesdays and Saturdays this is No. 80 Mixed; on the other days, it becomes No. 100 Goods and leaves Moshi 3 hours earlier.

From Moshe, we can easily see the looming bulk of Mt Kilimanjaro to the north and our train to Voi will keep it on our left-hand side for miles until we reach the Kenyan border at Taveta. On this section we are guided by an East African Railways and Harbours WTT– No 14 of 1st March 1952. We shall use it for the remainder of our journey all the way through Tanzania and Kenya and most of the way into Uganda. For the first twelve miles and 90 minutes to Kahe, we backtrack along the Tanga line.

The route is eastward and not particularly difficult when compared with some we will later encounter. Between Ziwanu and Makatau the line takes us through Tsavo National Park. West of Makatu, we skirt the Taita Hills (mountains really—they are nearly as tall as Mt Kosciuzsko) and arrive in Voi some 7 hours after we leave Moshi. The train is now back where it started from at 4:45 this morning. Its timetable is designed to connect with the mainline trains and two of its carriages are through cars to Tanga.

### On the Lunatic Express

We continue from Voi using the same WTT. As a previous owner has noted on the cover "This was issued before the arrival of the 59-class locomotives'. These engines were the largest Garratts ever constructed (apart from a single one for Russia) and easily exceeded in size the 60-class Garratts of the NSWGR— quite an achievement for the metre-gauge.

This is a WTT in the classic style, 120 pages jam-packed with all manner of information, from which we learn that our train, No 1 Passenger consists of a set of 2 FCB and 4 SCB "Upper Class" cars, these being First and Second class "Corridor Bogies". On two days of the week, a two-car SCB/FCB set is also attached as far as Voi, from where it runs the Voi—Moshi service, on which we have just arrived. There is a dining car too, which will work

UP	NAII	U				
STATIONS	Gilgit Pick Up	Uplands Pick Up	1 Passenger Mon., Thur., Sat.	25 Passenger Tues., Wed., Fri., Sun.		
	Arr. Dep.	Arr. Dep.	Atr. Dep.	Arr. Dep.		
	ы. м. н. м.	н. м. н. м.	н. м. ; н. м.	н. м. н. м.		
NAIROBI TEFWR KIBERA DAGORETTI KIKUYU W MUGUGA LIMURU ULYLANDS MATATHIA KIJABE TW LONGONOT SUSWA MUNYU NAIVASHA MORENDAT SUR J. RAMSDER'S SIDING HALT	5 27 6 02 6 36 48 6 40 7 23 32 7 35 8 04 8 35 To run as	6 15 To run as o'rdered by Control	9 40 10 08 10 10 10 10 33 50 10 34 11 03 11 13 19 33 11 13 19 33 11 35 11 57 56 12 00 12 25 12 30 12 44 12 46 13 04 13 14 13 22 2 26 13 34 13 49 14 02 14 04 14 17 4 4 25 14 38 40 14 43	9 40 10 08 9 10 10 10 33 50 10 33 18 03 11 33 11 33 11 35 11 57 56 12 00 12 25 12 30 12 44 12 46 13 04 13 14 13 22 2. 26 13 34 13 48 13 49 14 02 14 04 14 17 14 25 15 17 44 15 27		
KARTANDUS MBARUK MERERONI NAKURU TEFW	·		15 43 16 03 16 05 16 22 16 39 17 03	15 43 15 44 16 03 16 05 16 22 16 25 16 39		
NAKURU. TEFW STONE QUARRY SIDING OLD JUNCTION SIDING MENERGAI TW VISOI SABATIA BALLAST SIDING MAJI MAZONI W		:	17 45 48 17 47 18 07 e/o 18 15 18 43 18 45 19 20 50 19 24 19 49 19 57	17 45 48 17 47 18 07 19 18 15 18 43 18 45 19 20 50 19 24 19 49 19 57		
MARUTANO KONGONI FUEL SIDING EQUATOR TW TIMBOROA WR AINABKOI KIPKABUS W KAPTAGAT CHEPLOSKE HALT PLATEAU W BALLAST SIDING ELDORET TEFW		: ! ! !	20 32 20 33 21 18 54 21 20 21 55 21 57 212 23 56 22 26 23 01 23 04 23 22 23 24 23 51 40 23 56	20 32 20 33 21 18 54 21 20 21 51 21 57 22 23 56 22 26 23 01 23 04 23 22 23 24 23 51 40 23 56		

all the way through to Kampala. All told, it takes 4 sets like this to run the full service to Kampala and back. The set leaving Mombasa on Sunday afternoon, is back in Mombasa by next Friday morning. There are no third-class cars—Third class people travel in a separate train, No. 25. Although No.1 needs some 46¾ hours to cover the 839 miles between Mombasa and Kampala, there are no sleeping cars. The train runs Daily between Mombasa and Nairobi, but only three days per week from there to Kampala.

The Mombasa-Nairobi section carries some 15 trains each way every day. This is not a large number but, because trains travel rather slowly, the line always seems to be choked. No. 1 will meet 27 trains along the way. This is more than the 15 just referred to because it meets some trains more than once. It meets Down Goods No. 40 no fewer than 4 times, for

instance—that is to say it meets 4 of the 5 Monday-Friday incarnations of No 40 as the latter trundle along on their own two-day journey from Eldoret to Mombasa. Our WTT shows all these crossings very plainly. The WTT is laid out in the old-fashioned British way with a column each for arrival and departure times, with the trains to be crossed shown in small numerals in an intermediate column.

The track is single throughout, worked under electric train token regulations (and still is in 2007), although the original safeworking was by Electric Train Tablet. The average separation between stations is about 10 miles, so there is nearly always something requiring No. 1 to stop at every place. As near as the WTT can tell us, we overtake no trains at all on the journey—all the trains we see are Down trains heading downhill to Mombasa. The EAR&H WTT admits that the line has reached saturation

density. It allows drivers to upgrade their trains from "Goods" to "Fast Goods" if this will ease the flow of traffic.

We pick up No.1 when it arrives at Voi just after 9 pm and have plenty of time to settle into our compartment, because the train spends nearly half an hour here. Fifteen minutes of this are for "engine duties" according to the WTT. The engine is taking a breather because it has been climbing all the way from Mombasa and the line is now some 1,942 feet above sea level. Voi station is 103 miles and 5 halffurlongs from Mombasa- this must be one of the few WTTs that show distances in half-furlongs. In some Kenya Railways WTTs, the half-furlongs are given in fractional parts- quarter-furlongs, I suppose. This terminology was still being used by the descendants of EAR&H in the 1980s.

Voi is in a pass at the end of the Sagala Hills and the railway runs downhill for a while from here, as we approach the Galana River valley and descend to Tsavo. A recent participant on an walking trek which passed through Tsavo said of it: Tsavo station is a little surreal. And not only because a railway station is not usually on a walking safari itinerary. It is a step back into a Victorian-era railway this one was once known as the Lunatic Express - replete with 19th century mechanical signalling and token working. Touring through the old station building that houses the signalman's office is like stepping into a previous century. I swear that the books and manuals high on a dusty shelf are just as the last colonial station master left them. A photo published with this article showed that one of these manuals was a 2007 WTT.

It is night time when we arrive, so we cannot see, far away to the west, the snow-capped peak of Mt Kilimanjaro, which we have skirted on our connecting train from the Tanga line. We reflect upon the legend that some 130 construction workers were eaten by lions here while the railway was being built—so we stay on board, gazing out at the "Voi Pick Up" goods which we meet here. This train—the only one without a number in the WTT, takes more than a day to cover the Nairobi-Voi section, and is the slowest on the line.

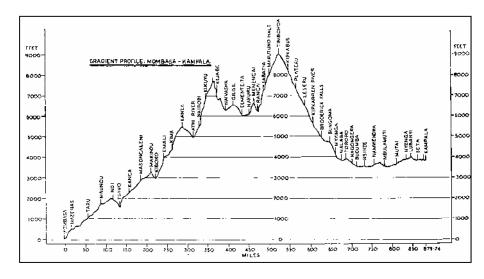
Tsavo marks a low point and the climbing starts in earnest again soon afterwards. There is some 140 miles of climbing beyond here until we reach the summit at abut 5,259 feet near Ulu. It is hard work and the train stops 5 times for water in this section. It is well before dawn when No. 1 creaks into Kima, just short of Ulu, to cross Goods train No. 40. Just the same, everyone is awake and gazes out the windows with silent awe at this rather nondescript station. Kima is an infamous place, where a marauding lion ate Mr Ryall, the railway inspector. The events were de-



scribed by Lt Col J. H. Patterson in his classic work *The man-eaters of Tsavo* as follows:

A man-eating lion had taken up his quarters at the station and had developed an extraordinary taste for the members of the railway staff. He was a daring brute, quite indifferent as to whether he carried off the station master, the signalman, or the pointsman; and one night, in his efforts to obtain a meal, he actually climbed up on to the roof of the station buildings and tried to tear off the corrugated-iron sheets. At this the terrified baboo in charge of the telegraph instrument below sent the following laconic message to the Traffic Manager: 'Lion fighting with station. Send urgent succour'.

It was in a vain attempt to destroy this pest that poor Ryall met his tragic and untimely end. On June 6, 1900, he was travelling up in his inspection carriage from Makindu to Nairobi, accompanied by two friends, Mr. Huebner and Mr. Parenti. Ryall's carriage was detached from the train and shunted into a siding close to the station. In the afternoon the three friends went out to look for the lion, but finding no traces of him whatever, they returned to the carriage for dinner.



Afterwards they all sat up on guard for some time. The hour growing late, and there being apparently no sign of the lion, Ryall persuaded his two friends to lie down, while he kept the first watch. It is supposed that Ryall, after watching for some time, must have lain down on the lower berth and dozed off. No sooner had he done so, than the cunning man-eater began cautiously to stalk the three sleepers

He sprang at once at Ryall, but in order to

reach him had actually to plant his feet on Parenti. At this moment Huebner was suddenly awakened by a loud cry, and on looking down from his berth was horrified to see an enormous lion standing with his hind feet on Parenti's body, while his forepaws rested on poor Ryall. A moment afterwards a great crash was heard, and the whole carriage lurched violently to one side; the lion had broken through one of the windows, carrying off poor Ryall with him. Being now released, Parenti lost no time in jumping through the window on the opposite side of the carriage, and fled for refuge to one of the station buildings.

Beyond the summit at Ulu, we start down again into the valley of the Athi River, losing some 1,300 feet in the process before regaining it all on the haul up to Nairobi, where we arrive at 10 minutes after 8 in the morning. In effect, the train terminates here, but will be reborn as a new No. 1, to carry on toward Kampala, an hour and a half later. The engine, which has hauled us all the way from Mombasa, will be switched for something bigger. Nairobi has the biggest locomotive depot on the line.

Leaving Nairobi for Kampala at 9:40, our train now carries an extra 3 cars, which will be detached along the way for the Kitale and Namsagali branches. It is thus quite a caravan. There are two unnumbered Pick-ups in the sections ahead of us the Gil Gil and the Uplands. Somewhere along the line we will surely overtake the Gil Gil pick-up. On alternate days of the week our path is taken by No. 25 passenger, a somewhat lower prestige train. Our engine will be changed at Nakuru and will return to Nairobi on a Goods. Ninety minutes behind us comes No 31 Mixed, but this straggler does not reach Nakuru until 3 hours after we do.

Nakuru is not much higher in altitude than is Nairobi, but the line follows a rollercoaster ride between the two requiring climbs to summits of nearly 8,000 feet. We

ŲP		ELDORET	NA.	MA	SAC	JAL	<u>l—</u>	KAM	'AL	<u>.</u>			UP
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124/12 135/4 146/5 155/2 164/6 176/9 196/11 210/15 235/5 246/9 250/6 268/12 284/10 294/10 307/15 316/14	11 1 11 1 12 1 20 14 25 15 18 16 10 13 16 10 13 16 10 13 16 17 16 17 17 17 17 18 16 17 17 18 16 17 17 17 17 17 17 18 16 17 17 17 17 18 16 17	ELDORET TEFW   LISSERU TURBO TW   KIPKARREN R. CN   LUGARI W BRODERICK FALLS TW   BUNGOMA W MYANGA W TORORO TEFW   BALLAST SIDING   NAGONGERA BUDUMBA W NISINZE KALIRO W NAMWENDWA NAMAGIANDA KAMULI   KAMULI   KAMULI   KAMULI   KAMULI   KAMULI   KAMULI   KAMULI   KAMULI   KIPKAR   KIPKAR   KAMULI   KAMULI   KIPKAR   KIPKAR   KAMULI   KIPKAR   KIPKAR	25 26 24 23 29 46 32 56  35 41 36 23 31 21		28 29 24 24 32 55 32 70  44 50 45 28 43 25 17	8	12 8 12 20 12	0 21 1 14 1 42 2 31 3 08 3 58 4 32 5 31 7 12 7 56 8 25	2, 26 50 56 46	8. M. 0 49 1 16 1 44 2 08 2 39 3 12 4 00 5 56 6 31 7 20 8 02 8 33 9 04 9 25 9 40	10 21 1 14 1 42 2 31 3 08 3 58 4 32 5 31 7 12 7 56 8 25	2, 26	H. M. 0 49 1 16 1 14 2 08 2 39 3 12 4 00 4 35 5 56 6 31 7 20 8 02 8 33 9 04 9 25 9 40
60/10	19	NAMASAGALI CN, TEFW			٠.								
31/4 26/4 11/2 2/0 9/10	9 16 15 9 2	MBULAMUTI TW LUZINGA KAKIRA JINJA TEFW NYENGA	21 37 34 26	(52) 37 34 26	29 40 48 36	10  10	12  i0	10 01 11 24 11 53	50 36	10 13 10 50 11 27 12 08	10 01 11 24 11 #3	50 36	10 13 10 50 11 27 12 08
13/9 18/11 26/3 35/3 41/0 49/3 56/10	17	BUNDO SIDING LUBANYI KAWOLO W SETA MUKONO NAMANYE KAMPALA TEFW	48 20 43 22 21	55 22 48 26 24	53 28 26	5	i0 ::	12 56 13 18 14 09 14 34 15 00	2, 26	12 58 13 26 14 12 14 39	12 56 13 18 14 09 14 34 15 00	2, 26     	12 58 13 26 14 12 14 39

### SAFETY FIRST

DRIVERS-

OBSERVE ALL SPEED RESTRICTIONS.

stop at every station for safeworking purposes, including 12 minutes at Longonot to meet our opposing number, Passenger No. 2. During the afternoon, we meet No. 40 goods for the 3rd time. It is late afternoon, nearly 24 hours after leaving Mombasa that we steam into Nakuru. Nakuru is the 4th largest town in Kenya and lies deep in the Great Rift Valley, a long gash in the Earth's surface stretching from Lebanon to Mozambique, where Africa is gradually splitting in two. Millions of years in the future, Nakuru will be an ocean port. Nakuru is, in many ways, the nerve centre of the railway. Here there is a short section of double track, with colour light signals and modern signal cabins. This is also where the branch (or is it the main line?) for Kisimu on Lake Victoria strikes out. Number 31 Mixed, coming up behind us will take this line.

With yet another new engine, we are off again just after 5 pm. The sun sets suddenly about an hour later, as it always does hereabouts. For we are now very near the equator and, at 9:18 pm, we pause to cross train No 54 at the station of that very name. Equator is, in fact, right on the equator which runs through the very middle of the platform. There is a marker, of course where passengers like to be photographed during the two-minutes pause here. There are only a few railways in the world which cross the equator (apart from Kenya, they are in Ecuador, Sumatra and the Congo), but none which offer the unique feature of a station astride it.

At Equator, the line is still climbing, but not long after this we come to the summit of the Kenya-Uganda Railway near the station of Timboroa. At an altitude of 9,001 feet, Timboroa is the highest station in the British Empire and the nearby summit, at 9,136 feet, is the highest point reached by any British railway.

Eldoret is our next major stop and another engine-change point. It is just after midnight when we pull in here and half an hour elapses before we leave. At the next station, we meet another edition of train No. 2 (logically, we meet them roughly every 12 hours, of course). It is another hundred miles of wending our way around the foothills of the giant volcano Mt Elgon to our north, before we reach the Ugandan border at Malaba. Just over the border, at Tororo we detrain from No 1 and watch as it steams off for Kampala, still 10 hours away.

Had we been trying to emulate Rhodes in the year of our WTT (1951), we would have stayed on board No. 1 and eventually found our way to Kampala and Port Bell on Lake Victoria. But at Tororo the Pakwach branch, officially the Northern Line, beckons us from the future. In 1951 though it is just the Soroti branch and has a 3 days per week Mixed train service, which can



get us to Soroti in 5½ hours, as our timetable shows. The Soroti line was not extended to Pakwach until the 1960s and no timetable for this line can be found these days. The line was not a success and was closed after only a few years. In fact, there are effectively no railways at all in Uganda, nor have there been any since the 1970s. Our trip to Pakwach then must be much more imaginary than on any other leg of our Cape-to-Cairo saga. At over 500 miles of travel, it was sure to have been tedious and uncomfortable, however.

Pakwach is on the Nile, downstream from the Murchison Falls, which is why the Pakwach line was built. EAR&H ferries once operated out of here and the "station" even appeared in the rail WTT. There is again talk of restoring the ferries, but nothing much ever seems to happen in Uganda. For the moment, all that exists is a partially demolished landing stage. In our next installment we shall use it as it was in earlier years and sail down the Nile into Sudan.

Parts of the Kenya-Uganda Railway are still in use today. The Kenya Railways Corporation runs passenger trains between Mombasa and Nairobi and has recently reopened the line between Nairobi and Kisumu near the Kenya-Uganda border. The train has not travelled to Kampala since the 1970s. The Nairobi train usually leaves in the evening and arrives the following morning after a journey of around 13 to 14 hours and the Kenya and Ugandan governments have signed a joint agreement to allow privatization of the line. Travel on the Kisumu line is possible,

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235/5 10/13 22/4 34/11 48/0 58/7 70/3 78/11 100/3	11 11 12 14 10 12 9 21	1-5	TORORO TEFW MAGODES . CN MANAFWA C MBALE CNTW KACHUMBALA CN BUKIDEA . C KUMI . CNW OKUNGULO . CN SOROTI CNTW	31 29 31 34 24 29 20 60	12	R. M. 10 31 11 05 11 39 12 44 13 13 13 45 14 20 15 26	R. M. 10 00 118 10 36 11 08 12 10 12 49 13 16 14 00 14 26	H. M. 12 31 13 08 13 41 14 54 15 28 15 59	H. M. 12 00 12 39 13 10 92 14 20 15 04 15 30	H. M. 15 01 15 49 16 22 17 36 18 14 18 45 19 20 20 28	H. M. 14 30 92 15 20 15 51 17 02 120 17 50 18 16 19 00 19 28
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## Perth southern suburbs transport before the Railway HILAIRE FRASER

With the Perth Southern Suburbs Railway due to open before Christmas 2007, I thought that it would be appropriate to detail the present Southern Suburbs bus network, timetable by timetable showing route descriptions and key frequencies that is, Monday to Friday off-peak, Saturday, Sunday and Nights.

Perth bus timetables are colour-coded and numbered as follows:-

South Eastern (orange)1 to 20Western (dark blue)31 to 46Northern (olive)56 to 78Eastern (maroon)86 to 110

(omits 92 & 99)

Southern (brown) 116 to 133

Rail timetables are colour-coded to identify them with one of the above regions as follows:-

Armadale/Thornlie Line (orange) Fremantle Line (dark blue) Northern Line (olive) Midland Line (maroon) The Perth-South Perth Ferry timetable is green, the Circle Route bus timetable is aqua and the Joondalup CAT (Central Area Transit) bus timetable is grey-green. All the above timetables are in folded leaflets 244mm by 84mm. There are also folded pocket timetables for the Perth CAT and Fremantle CAT bus services.

Bus routes numbers have been allocated to the proposed new Southern Suburbs Railway Bus Network as follows:-

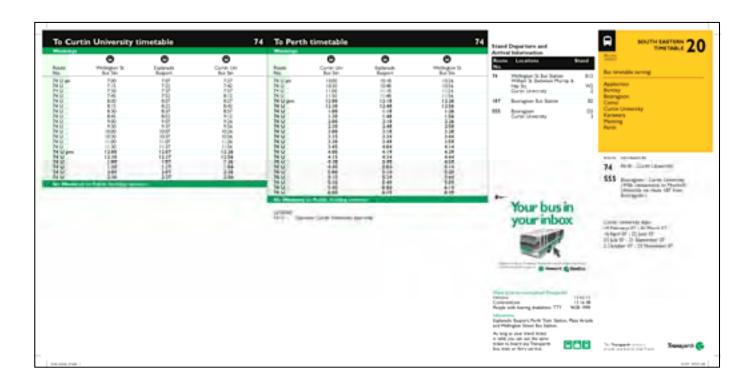
500-509 Bull Creek Feeders 510-519 Murdoch Feeders 520-539 Cockburn Central Feeders 540-549 Kwinana Feeders 550-569 Rockingham Feeders 580-599 Mandurah Feeders

Already some changes have taken place foreshadowing the new post railway bus network. Routes 526 Cannington-Canning Vale & 528 Willetton-Canning Vale have been renumbered 216 & 217 respectively to free 526 & 528 for the new feeder bus services. Routes 133, 134, 135, 136, 137,

139, 194, 520 (previously 510) & 794 now terminate at Cockburn Central Train Station in stead of the Success Park 'n' Ride facility at the Gateway Shopping Centre to use the new park 'n' ride facility adjacent to the as yet unopened station. Also 527 has been allocated to a school service from Cockburn Central to Aubin Grove foreshadowing the use of 527 for the new public service. On 18th February 2007 route 74 a new service between Perth City & Curtin University via the Kwinana Freeway (timetable attached) was introduced, foreshadowing route 100 Canning Bridge-Curtin University Feeder Service.

With the opening of the new Southern Suburbs Railway approximately one-third of the Perth bus network will have new timetables, a print run of over one million.

Timetables for the existing network start on the next page (most routes do not operate Sunday nights), abbreviations used are PH for peak hour and LS for limited service.



Rte No		Mon-Fri	Sat	Sun
South B	Eastern 1			
781	East Perth-Canning Vale	PH		
	Via Goodwood Way			
	Perth-Maddington	60	60	
880	Via South St & Campbell Rd	60 Night	60 Night	60
	Perth-Maddington			
882	Man Annah At A Mindra Bul	60		
*!h	Via South St & Warton Rd	8 0461144		
	ows 883, 884 Perth-Livingsto	ne & 215 Livin	gstone-Hunti	ngdale
	Eastern 2			
218	Cannington-Parkwood	PH		
779	East Perth-Parkwood	PH		
879	Perth-Cannington via	30	30	60
	Parkwood	60 Night	60 Night	
south I	Eastern 4			
212	Perth-Huntingdale	60		
	Via Spencer Rd			
214	Thornlie-Huntingdale	60		
	Via Balfour St			
215	Perth-Canning Vale	60	60	60
	Via Spencer Rd	60 Night	60 Night	
	er section of 215 will be repla	ced by 517 Mi	irdoch-South	em River
South 8	Eastern 6			
	Cannington-Canning Vale	PH		
216	Carrington-Carring Vale	PH		
216	Via Bannister Rd	PH		
217	Via Bannister Rd Willetton-Canning Vale	PH		
217	Via Bannister Rd	PH	n via Bannist	er Rd
217	Via Bannister Rd Willetton-Canning Vale	PH	n via Bannist	er Rd
217 216,217 South I	Via Bannister Rd Willetton-Canning Vale to be replaced by 208 Murd	PH och-Canningto		
217	Via Bannister Rd Willetton-Canning Vale 7 to be replaced by 208 Murd Eastern 9	PH	n via Bannist 60	er Rd 120
217 216,217 South I	Via Bannister Rd Willetton-Canning Vale 7 to be replaced by 208 Murd Eastern 9 Perth-Booragoon	PH och-Canningto 60		
217 216,217 South I	Via Bannister Rd Willetton-Canning Vale to be replaced by 208 Murd Eastern 9 Perth-Booragoon Via Rossmoyne	PH och-Canningto		
217 216,217 South I	Via Bannister Rd Willetton-Canning Vale To be replaced by 208 Murd Eastern 9 Perth-Booragoon Via Rossmoyne Perth-Canning Vale	PH och-Canningto 60		120 60(with
217 216,217 South I 170	Via Bannister Rd Willetton-Canning Vale To be replaced by 208 Murd Eastern 9 Perth-Booragoon Via Rossmoyne Perth-Canning Vale Via Willetton West	PH och-Canningto 60 120 30(with 174)	60	120
217 216,217 South I 170 174	Via Bannister Rd Willetton-Canning Vale To be replaced by 208 Murd Eastern 9 Perth-Booragoon Via Rossmoyne Perth-Canning Vale Via Willetton West Perth-Wilson Via Berwick St	PH och-Canningto 60 120 30(with 174) 60 Night	60 60 Night	120 60(with 170)
217 216,217 South I 170	Via Bannister Rd Willetton-Canning Vale Yobe replaced by 208 Murd Eastern 9 Perth-Booragoon Via Rossmoyne Perth-Canning Vale Via Willetton West Perth-Wilson	PH och-Canningto 60 120 30(with 174) 60 Night 60	60 Night	120 60(with
217 216,217 South I 170 174 176	Via Bannister Rd Willetton-Canning Vale To be replaced by 208 Murd Eastern 9 Perth-Booragoon Via Rossmoyne Perth-Canning Vale Via Willetton West Perth-Wilson Via Berwick St Perth-Bentley Via Berwick St	PH och-Canningto 60 120 30(with 174) 60 Night 60 80 Night	60 Night 60 Night	120 60(with 170)
217 216.217 South I 170 174 176 177	Via Bannister Rd Willetton-Canning Vale Yo be replaced by 208 Murd Eastern 9 Perth-Booragoon Via Rossmoyne Perth-Canning Vale Via Willetton West Perth-Wilson Via Berwick St Perth-Bentley Via Berwick St terminate at Bull Creek, new	PH och-Canningto 60 120 30(with 174) 60 Night 60 80 Night	60 Night 60 Night	120 60(with 170)
217 216,217 South I 170 174 176 177 170 will	Via Bannister Rd Willetton-Canning Vale To be replaced by 208 Murd Eastern 9 Perth-Booragoon Via Rossmoyne Perth-Canning Vale Via Willetton West Perth-Wilson Via Benwick St Perth-Bentiey Via Benwick St terminate at Bull Creek, new Eastern 13	PH och-Canningto 60 120 30(with 174) 60 Night 60 60 Night 179 will opera	60 Night 60 Night	120 60(with 170)
217 216.217 South I 170 174 176 177	Via Bannister Rd Willetton-Canning Vale To be replaced by 208 Murd Eastern 9 Perth-Booragoon Via Rossmoyne Perth-Canning Vale Via Willetton West Perth-Wilson Via Benwick St Perth-Bentley Via Benwick St terminate at Bull Creek, new Eastern 13 East Perth-Riverton	PH och-Canningto 60 120 30(with 174) 60 Night 60 80 Night	60 Night 60 Night	120 60(with 170)
217 216,217 South I 170 174 176 177 170 will South I	Via Bannister Rd Willetton-Canning Vale To be replaced by 208 Murd Eastern 9 Perth-Booragoon Via Rossmoyne Perth-Canning Vale Via Willetton West Perth-Wilson Via Benwick St Perth-Bentiey Via Benwick St terminate at Bull Creek, new Eastern 13 East Perth-Riverton Via Apsley Rd	PH och-Canningto 60 120 30(with 174) 60 Night 60 60 Night 179 will opera	60 Night 60 60 Night te Perth-Bull	120 60(with 170)
217 216,217 South I 170 174 176 177 170 will	Via Bannister Rd Willetton-Canning Vale Yo be replaced by 208 Murd Eastern 9 Perth-Booragoon Via Rossmoyne Perth-Canning Vale Via Willetton West Perth-Wilson Via Benwick St Perth-Bentiey Via Benwick St terminate at Bull Creek, new Eastern 13 East Perth-Riverton Via Apsley Rd Perth-Cannington	PH och-Canningto 60 120 30(with 174) 60 Night 60 60 Night 179 will opera	60 Night 60 Night	120 60(with 170)
217 216,217 South I 170 174 176 177 170 will South I	Via Bannister Rd Willetton-Canning Vale Yo be replaced by 208 Murd Eastern 9 Perth-Booragoon Via Rossmoyne Perth-Canning Vale Via Willetton West Perth-Wilson Via Benvick St Perth-Bentley Via Benvick St terminate at Bull Creek, new Eastern 13 East Perth-Riverton Via Apsley Rd Perth-Cannington Via High Rd	PH och-Canningto 60 120 30(with 174) 60 Night 60 80 Night 179 will opera	60 Night 60 60 Night te Perth-Bull	120 60(with 170)
217 216,217 South I 170 174 176 177 170 will South I	Via Bannister Rd Willetton-Canning Vale Yobe replaced by 208 Murd Eastern 9 Perth-Booragoon Via Rossmoyne Perth-Canning Vale Via Willetton West Perth-Wilson Via Benwick St Perth-Bentiey Via Benwick St terminate at Bull Creek, new Eastern 13 East Perth-Riverton Via Apsley Rd Perth-Cannington Via High Rd Perth-Cannington	PH och-Canningto 60 120 30(with 174) 60 Night 60 80 Night 179 will opera PH 60 60	60 Night 60 60 Night te Perth-Bull 60	120 60(with 170)
217 216,217 South 8 170 174 176 177 170 will South 8 778 877	Via Bannister Rd Willetton-Canning Vale Yobe replaced by 208 Murd Eastern 9 Perth-Booragoon Via Rossmoyne Perth-Canning Vale Via Willetton West Perth-Wilson Via Benwick St Perth-Bentiey Via Benwick St terminate at Bull Creek, new Eastern 13 East Perth-Riverton Via Apsley Rd Perth-Cannington Via High Rd Perth-Cannington Via Apsley Rd	PH och-Canningto 60 120 30(with 174) 60 Night 60 80 Night 179 will opera	60 Night 60 60 Night te Perth-Bull	120 60(with 170) 120 Creek via
217 216,217 South 8 170 174 176 177 170 will South 8 778 877	Via Bannister Rd Willetton-Canning Vale Yobe replaced by 208 Murd Eastern 9 Perth-Booragoon Via Rossmoyne Perth-Canning Vale Via Willetton West Perth-Wilson Via Benwick St Perth-Bentiey Via Benwick St terminate at Bull Creek, new Eastern 13 East Perth-Riverton Via Apsley Rd Perth-Cannington Via High Rd Perth-Cannington Via Apsley Rd Eastern 18	PH och-Canningto 60 120 30(with 174) 60 Night 60 80 Night 179 will opera PH 60 60	60 Night 60 60 Night te Perth-Bull 60	120 60(with 170) 120 Creek via
217 216,217 South 8 170 174 176 177 170 will South 8 778 877	Via Bannister Rd Willetton-Canning Vale To be replaced by 208 Murd Eastern 9 Perth-Booragoon Via Rossmoyne Perth-Canning Vale Via Willetton West Perth-Wilson Via Benwick St Perth-Bentiey Via Benwick St terminate at Bull Creek, new Eastern 13 East Perth-Riverton Via Apsley Rd Perth-Cannington Via High Rd Perth-Cannington Via Apsley Rd Eastern 18 Thomlie-Huntingdale	PH och-Canningto 60 120 30(with 174) 60 Night 60 80 Night 179 will opera PH 60 60	60 Night 60 60 Night te Perth-Bull 60	120 60(with 170) 120 Creek via
217 216,217 South I 170 174 176 177 170 will South I 778 877 878	Via Bannister Rd Willetton-Canning Vale Yobe replaced by 208 Murd Eastern 9 Perth-Booragoon Via Rossmoyne Perth-Canning Vale Via Willetton West Perth-Wilson Via Benwick St Perth-Bentiey Via Benwick St terminate at Bull Creek, new Eastern 13 East Perth-Riverton Via Apsley Rd Perth-Cannington Via High Rd Perth-Cannington Via Apsley Rd Eastern 18 Thomlie-Huntingdale Via Berehaven Rd	PH och-Canningto 60 120 30(with 174) 60 Night 60 60 Night 60 60 Night 60 60 Night 60 60 Night	60 Night 60 60 Night te Perth-Bull 60	120 60(with 170) 120 Creek via
217 216,217 South I 170 174 176 177 170 will South I 778 877 878	Via Bannister Rd Willetton-Canning Vale To be replaced by 208 Murd Eastern 9 Perth-Booragoon Via Rossmoyne Perth-Canning Vale Via Willetton West Perth-Wilson Via Benwick St Perth-Bentiey Via Benwick St terminate at Bull Creek, new Eastern 13 East Perth-Riverton Via Apsley Rd Perth-Cannington Via High Rd Perth-Cannington Via Apsley Rd Eastern 18 Thomlie-Huntingdale Via Berehaven Rd Thomlie-Canning Vale	PH och-Canningto 60 120 30(with 174) 60 Night 60 60 Night 60 60 Night 60 60 Night 60 60 Night	60 Night 60 60 Night te Perth-Bull 60	120 60(with 170) 120 Creek via
217 216,217 South I 170 174 176 177 170 will South I 778 877 878 South I 223	Via Bannister Rd Willetton-Canning Vale To be replaced by 208 Murd Eastern 9 Perth-Booragoon Via Rossmoyne Perth-Canning Vale Via Willetton West Perth-Wilson Via Benwick St Perth-Bentiey Via Benwick St terminate at Bull Creek, new Eastern 13 East Perth-Riverton Via Apsley Rd Perth-Cannington Via High Rd Perth-Cannington Via Apsley Rd Eastern 18 Thomlie-Huntingdale Via Berehaven Rd Thomlie-Canning Vale Via Yale Rd	PH och-Canningto 60 120 30(with 174) 60 Night 60 60 Night 60 60 Night 60 60 Night 60 60 Night PH 60 60 60 Night PH 60	60 Night 60 60 Night te Perth-Bull 60 60 60 Night	120 60(with 170) 120 Creek via
217 216,217 South I 170 174 176 177 170 will South I 778 877 878 877 878	Via Bannister Rd Willetton-Canning Vale To be replaced by 208 Murd Eastern 9 Perth-Booragoon Via Rossmoyne Perth-Canning Vale Via Willetton West Perth-Wilson Via Benwick St Perth-Bentiey Via Benwick St terminate at Bull Creek, new Eastern 13 East Perth-Riverton Via Apsley Rd Perth-Cannington Via High Rd Perth-Cannington Via Apsley Rd Eastern 18 Thomlie-Huntingdale Via Berehaven Rd Thomlie-Canning Vale Via Yale Rd Perth-Cannington	PH och-Canningto 60 120 30(with 174) 60 Night 60 60 Night PH	60 Night 60 60 Night te Perth-Bull 60	120 60(with 170) 120 Creek via
217 216,217 South I 170 174 176 177 170 will South I 778 877 878 South I 223	Via Bannister Rd Willetton-Canning Vale To be replaced by 208 Murd Eastern 9 Perth-Booragoon Via Rossmoyne Perth-Canning Vale Via Willetton West Perth-Wilson Via Benwick St Perth-Bentiey Via Benwick St terminate at Bull Creek, new Eastern 13 East Perth-Riverton Via Apsley Rd Perth-Cannington Via High Rd Perth-Cannington Via Apsley Rd Eastern 18 Thomlie-Huntingdale Via Berehaven Rd Thomlie-Canning Vale Via Yale Rd	PH och-Canningto 60 120 30(with 174) 60 Night 60 60 Night 60 60 Night 60 60 Night 60 60 Night PH 60 60 60 Night PH 60	60 Night 60 60 Night te Perth-Bull 60 60 60 Night	120 60(with 170) 120 Creek vis

Rte No	Route Description	Mon-Fri	Sat	Sun
South E	Eastern 20			
74	Perth-Curtin University	30		
	Via Kwinana Freeway	30		
	Booragoon-Curtin	60		
555	University	30 Uni Days		
Wester	n 34			
160	East Perth-Booragoon	45	45	60
	Via Reynolds Rd	60 Nights	60 Nights	60 Nights
Wester				
142	Fremantie-Booragoon	60	60	60
Montes	Via Hilton	60 Nights	60 Nights	60 Nights
Wester			-00	
144	Fremantie-Coolbellup	60	60	90
	Via Hilton	120 Nights	90 Nights	
145	Fremantie-Booragoon	60	60	120
	Via Hilton & Samson	120 Nights	120 Nights	120
Wester				
4.40	Fremantie-Booragoon	60	60	60
146	Via Watkins St & Willagee	60 Nights	60 Nights	60 Nights
	Fremantie-Booragoon			
147	Via Canning Hwy & Willagee	LS		
Wester				
440	Fremantie-Applecross	PH	-00	1.0
148	Via Attadale	PR	60	LS
158	Fremantie-East Perth	60		
	Via Attadale			
Wester	-			
154	Fremantie-Booragoon	60	60	60
	Via Marmion St Fremantle-Cannington	60 Nights	60 Nights	60 Nights
155	Via Marmion St	60	60	
Wester				
184	Perth-Murdoch Park 'n' Ride	РН		
185	Perth-Murdoch University	30		
	ows 182, 183, 880, 882, 883		h Dark W Dir	io
Wester		- eror- murado	errare il POC	ne .
. 703001				
740	East Perth-Hamilton Hill	PH		
	Via Leach Hwy & Coolbellup			
940	Perth-Hamilton Hill	15	30	30
	Via Booragoon & Coolbellup	30 Nights	30 Nights	30 Nights
Southe	m 116			
116	Rockingham-Booragoon	LS	LS	
110		20	60	60
866	Rockingham-Perth	30		
866		30		
866		60	60	60
866 Southe	rn 117 Rockingham-Rockingham			60

Rte No	Route Description	Mon-Fri	Sat	Sun
Souther				
	Rockingham-Safety Bay			
113	Via Parkin St	60	60	60
	Rockingham-Safety Bay			
114	Via Seabrook Av	60	60	60
	Rockingham-Safety Bay			
115	Via Cygnus St	60		
Souther				
117	Rockingham-Port Kennedy	60	60	60
	Via Currie St			
119	Rockingham-Port Kennedy	60	60	60
	Via Waikiki			
123	Rockingham-Baldivis	60	60	60
Souther	m 120			
127	Kwinana-Medina	90	90	90
400	Kwinana-Orelia	00	0.0	00
128	Via Chisholm Av	90	90	90
	Kwinana-Orelia	A+		
129	Via Challenger Av	90	90	90
130	Kwinana-Bertram	90	90	90
Souther				
	Rockingham-Secret	PH		
118	Harbour	60 Nights	60 Nights	60 Night
168	Rockingham-Mandurah	30	60	60
718	Perth-Secret Harbour	PH	- 00	- 00
Souther				
161	Mandurah-Coodanup	60	LS	
163	Mandurah-Greenfields	60	LS	
164	Mandurah-Erskine	60	LS	
165	Mandurah-Dawesville	60	LS	
167	Mandurah-Meadow Springs	60	LS	
169	Mandurah-Silver Sands	30	60	60
Souther	m 123			
136	Fremantie-Cockburn Central	30	60	60
100	Via Yangebup	120 Nights	120 Nights	
138	Fremantie-Henderson	60	60	90
130	Premanue-menuerson	60 Nights	90 Nights	90
600	Fremantie-Cockburn Central	30	60	44
520	Via South Lake	120 Nights	120 Nights	60
Souther	m 124			
153	Samson-Spearwood	LS		
741	East Perth-Samson	PH		
Souther		FR		
Souther				
194	Booragoon-Cockburn Central	60	60	60
	Via Bibra Lake	60 Nights	60 Nights	

Rte No	Route Description	Mon-Fri	Sat	Sun
	East Perth-Cockburn			
794	Central	PH		
	Via Bibra Lake			
Southe	ern 126			
	Murdoch Park 'n' Ride-			
186	Leeming	60	120	
	Via Findlay Rd			
	Murdoch Park 'n' Ride-			
187	Booragoon	60	120	
	Via Bull Creek Dr			
	Murdoch Park 'n' Ride-			
188	Jandakot	PH		
	Via Calley Dr			
	Murdoch Park 'n' Ride-		1 trip each	
189	Jandakot		way	
	Via Findlay Rd			
786	East Perth-Leeming	PH		
	Via Findlay Rd			
Southe	em 127			
881	Perth-Munster	30	30	60
001	P et d - Imperiaver	60 Nights	60 Nights	60 Nights
Southe	ırn 128			
137	Cockburn Central-Success	60	120	120
139	Cockburn Central- Hammond Pk	60	120	120
193	Perth-Hammond Pk	PH		
Southe	ern 129			
182	Perth-Aubin Grove	PH		
	Perth-Aubin Grove	30	60	
183	Via Cockburn Central	60 Nights	60 Nights	60
Supple	mentary Services operate Per			ri 30. Sat
	ows 193 Perth-Cockburn Cer			
	ern 130			
	Fremantie-Rockingham	15	30	30
920	Via Kwinana	30 Nights	30 Nights	30 Nights
South	ern 131	30 regris	30 Hights	ou regina
867	Perth-Mandurah	60	120	120
	ern 132	00	120	120
SOUUM				
126	Fremantie-Rockingham	60		
120	Via Cockburn & Patterson Rds	50		
	1			
Southe	ern 133			
Southe	cockburn Central-			
Souther	Cockburn Central- Fremantie	РН		
	Cockburn Central- Fremantie Via Bannigan Av &	РН		
	Cockburn Central- Fremantie	РН		
	Cockburn Central- Fremantie Via Bannigan Av & Yangebup Rd Cockburn Central-Beeliar	РН		
133	Cockburn Central- Fremantle Via Bannigan Av & Yangebup Rd Cockburn Central-Beeliar Cockburn Central-	РН		
133	Cockburn Central- Fremantie Via Bannigan Av & Yangebup Rd  Cockburn Central-Beeliar  Cockburn Central-Fremantie		60	120
133	Cockburn Central- Fremantle Via Bannigan Av & Yangebup Rd Cockburn Central-Beeliar Cockburn Central-	РН	60	120

