UNDERGROUNI WS

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THE TIMETABLE

Monday 3 December Library Evening, 1830. The Society's Library open for inspection at 9A Dunrobin Court, 389 Finchley Road, London NW3 6HE.

Wednesday 5 December

LURS members are invited to attend this meeting of the Electric Railway Society which will be held at Fred Tallant Hall, 153 Drummond Street, Euston, NW1, at 1900. The meeting is entitled 'The Tony Atkinson Memorial Lecture' and will be presented by Mr.J.C.Gillham. The talk will be about the history of London's North Western Electrics (Euston/Broad Street-Watford/Richmond), based on the book jointly written by the late Tony Atkinson in 1962.

Friday 7 December

Symposium 'Centenary of Electric Railways - Progress in Underground Railway Technology since 1890', Speakers: Mr.B.J. Prigmore on Development of Technology of Power Supplies and Rolling Stock and Mr.R.D. Maiden on the Development of LT Signalling. 1900 for 1915 at Hammersmith Town Hall.

1980

Friday 11 January

Talk, 'Experimental Rolling Stock' by Mr.G.H.Hafter, O.B.E., Rolling Stock Engineer (Railways), London Transport. 1900 for 1915 at Hammersmith Town Hall.

Monday and Tuesday 4 and 5 February

Library Evenings, 1830. Other details as for 3 December 1979.

Friday 8 February

Modelling and Slide Show. All modellers of UndergrounD prototypes are asked to bring their models to this meeting to compare notes with fellow-modellers and to persuade nonmodellers to try their hands. The slide show will be presented by Mr, B.R. Hardy on 'Now defunct LT railway workings of the recent past.' 1900 for 1915 at Hammersmith Town Hall.

Friday 14 March

Talk, 'The Central Line and its Rolling Stock (Past and Present), by Mr.J.G.Bruce. 1900 for 1915 at Hammersmith Town Hall.

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OCTOBER HAMMERSMITH MEETING

At the meeting held on 12th October 1979, Dr.Gordon Taylor was unable to be present owing to business commitments, but those present heard a very interesting talk by two GLC officers, Mr.David Warren, Head of Rail Section, Department of Planning and Transportation, Greater London Council, and his deputy, Mr.John Willis.

In introducing the subject of The Planning of Transport in London, Mr.Warren began by explaining the difference between the GLC's full-time professional officers and members, who were elected at four-yearly intervals. Officers supplied information to the Council Committees (formed of selected members) and carried out Committee decisions.

As the GLC deals with land-use planning, it can take a broader view of transport developments than the transport operators. The built-up area of London had grown steadily up to about 1958, but since then further spread has been negligible. Between 1961 and 1971 population had decreased in the centre (by over 20% in some boroughs) and in some large towns in S.E. England, but had increased elsewhere, especially 40 miles out. This affected the traffic relationship between LT and BR. A projection to 1991 showed, compared with 1971, a slight increase in population for S.E. England as a whole, but decreases in Central, Inner and Outer London. Government policy had caused jobs to move from London to other towns, particularly Southend, Portsmouth and Basing-stoke. 63% of the passengers arriving in London in the morning peak come by rail (31% BR, 32% LT), but the 15% who come by car cause disproportionate problems.

A map of the relative weights of traffic on railway routes into London showed that the Underground was the dominant carrier from west and north, and BR from the east and south. LT railways also acted as distributor for BR passengers from central London termini, so that, in the morning peak, 33% of BR arrivals had an Underground journey to their destination. In the off-peak, the figure was about 60%. The busiest Underground station was Oxford Circus, and the busiest BR stations were Waterloo and Victoria. Many commuters arriving at City BR stations walked to their final destination, so that 15% of arrivals Cannon Street continued by Underground, but 80% at Kings Cross and Paddington. The peak period for BR arrivals was 0830-0850, but for Underground arrivals it was about 0915. Road traffic had a much flatter peak because of lack of road capacity, so that the height-of-peak traffic turned to rail, causing financial problems in providing high rail capacity that was used for short periods each day.

In a comparison of 'peakiness', Oxford Circus had a midday traffic level of over a third of the peaks, but Liverpool Street (BR) about a tenth. These examples followed the general pattern of less peakiness in the west of the central area.

A review of the movement of fares and petrol prices since 1971 showed increases at different times, but by 1979 the original relationship between the two indices had been roughly restored, although both had increased by about 20% more than the general cost of living had done. Petrol prices had some effect of the general level of road traffic, but in central London traffic tended to keep up to limits imposed by road capacity and the number of parking spaces.

Comparisons of traffic at Underground stations in 1967 and 1972 showed increases at Victoria Line stations, also those in the Earls Court, Kensington and Paddington areas, but decreases at all stations in the eastern part of the central area, reflecting the continuing drift of business employment from the City to the West End.

Mr.Willis then explained the financial relationships between the Government, GLC and LT. In London, 76% of LT's revenue came from fares, 22% from the GLC and 2% advertising and estates, whereas in Paris (RATP and SNCF) 36% came from fares, 26% from the State, 20% from an employers' tax, 11% from local authorities and 7% from advertising and estates.

Each year the GLC had to decide how to allocate LT's revenue needs between rates and fares, or whether to modify costs by altering service levels.

Every year, LT presented a rolling 10-year programme of proposed capital expenditure to the GLC. The railway part of the current programme for 1980-89 comprised £132 million for station improvements, £187 million for rolling stock, £43 million for depots, £16 million for power supply, £115 million for train control, £79 million for civil engineering, £85 million for AFC, £37 million miscellaneous and £25 million for extensions. The last figure was for a Piccadilly Line extension to Terminal 4 at Heathrow. Priorities between different ways of investing capital were decided on the basis of the GLC's directive to maximise passenger-miles for each £1 spent. Within the general framework of the 10-year plan, the GLC approved individual LT projects costing more than £1 million, and gave general approval to 8-10 year plans for individual programmes; e.g. depot modernisation. LT had to show the need for each new project by quantifying its effect on reducing costs and increasing revenue. Sometimes the anticipated benefits were not financially quantifiable; e.g. brighter stations. The proposed LT expenditure was approved at the GLC's London Transport Committee, or the Planning and Communications Committee, or the full Council, according to its magnitude or to the degree of agreement at the lower committees.

This concluded Mr.Willis' part of the talk, and both speakers answered questions from members on a wide variety of subjects. The meeting concluded with the speakers being given a hearty vote of thanks for delivering such interesting talks at short notice.

DFC

SOUTHGATE NORTH - ALL CHANGE (Or what might have been)

S.A.Tish

Although it is just under three years before we can celebrate the fiftieth anniversary of the Piccadilly Line eastern extension to Arnos Grove and Cockfosters, it is interesting to study the original proposals and suggestions for station names for this section of line, estimated at the time to cost £11 million, for the extension from Finsbury Park to Arnos Grove. This is in addition to the remaining section to Cockfosters.

The demand for this extension dates back to the mid-1920's when it was estimated that as many as 30,000 passengers daily, transferred between the Tubes at Finsbury Park and public service transport. It was becoming increasingly necessary for the provision of additional railway facilities north of Finsbury Park. However, despite sterling work by Frank Pick, for the London Electric Railway Company (LERC), it was not until 4th June 1930 that Royal Assent was granted. It was included in an act that also covered extensive station reconstruction in the central area.

By September 1930, work-site boards had been erected on most of the land designated for stations. Apart from informing the general public that work had commenced on the particular station site for the extension of the Piccadilly Railway, they were asked to write in with

their suggestion, for the name of the station in their locality.

Apart for three stations - Finsbury Park, Manor House and Cockfosters - it appeared that the names for the remaining stations had not yet been decided upon. Finsbury Park was the existing eastern terminus, whereas Manor House was to be named after the Public House which had stood on the site for many years. Cockfosters one assumes, was called after the main Cockfosters Road, which ran (and still does) to Stag Hill Enfield. The remainder of the names suggested by the LERC, from which the public were to choose, are listed below:-

Turnpike Lane - North Harringay - Ducketts Green.

Lordship Lane Wood Green - Wood Green Central.

Bounds Green - Brownlow Road - Wood Green North.

Arnos Grove - Arnos Park - Southgate - Bowes Road.

Southgate - Southgate Central - Chase Side.

Oakwood - Merryhills - East Barnet.

It will be seen that there was certainly no lack of choice, although it is not known how much influence the public had on the final choice!

Looking at Turnpike Lane, in my opinion, North Harringay would have been more descriptive of the area in which it is situated. The remaining suggestion, Ducketts Green (named after the large green just behind the station) would have been insufficient as this name is unknown outside the area.

Beyond Wood Green and Bounds Green, the line cuts across Arnos Park on a viaduct, en route to Southgate. Perhaps the choice of Arnos Park would have been more appropriate than the existing one, but then again, this is a point open to conjecture. Amongst other suggestions for this site were Southgate and Bowes Road. The latter was said to be the name favoured by the LERC. It is understood that a number of destination plates for rolling stock were ordered in advance of the name being decided upon and they were subsequently used in service covered with Arnos Grove stickers.

Moving on to the next station on the line, which is Southgate. An extract from the Urban District Council of Southgate (UDCS) Report of Committee to the London Electric Railway Bill 1930, stated that 'Land was to be designated for railway stations in the District at Chase Side Corner and East Barnet Road.' In early architects drawings, the station was referred to, at first, as Chase Side, and later, as Chase Side Corner. Even by September 1931, the name and final site seem to have been undecided. Finally however, these were dropped in favour of Southgate (being the name of the Urban District in which it stood).

By far the most interesting proposal was the name for the site we now know as Oakwood. By December 1931, almost a year and a half before the section of line was to open, the UDCS were expressing their dissatisfaction with the name Enfield West. They stated that Southgate North would be more appropriate. They also suggested Oakwood Park, but the LERC stated that this would lead to confusion with the nearby Oakleigh Park LNER station. Southgate North was rejected on the grounds that as the preceding station was to be named Southgate - Chase Side, this would also confuse visitors to the area. To substantiate their choice of Enfield West, the LERC pointed out that while the station was not actually within the boundaries of the Enfield area, it was only 0.24 of a mile from the boundary, they expected that the majority of their traffic would be drawn from the neighbourhood of Enfield. Their decision however, brought more dissention from the local residents. In July 1933 the UDCS tried again, in vain, with the newly formed London Passenger

Transport Board (LPTB). Their case was that many strangers had alighted at the station, expecting to find themselves in West Enfield (1 to 1.5 miles away). The LPTB replied to the effect that as all of the signs and notices throughout the system, had been purchased on the basis of Enfield West, it would be impossible for the Board to contemplate repeating the expenditure, in order to change the name. They stated further, that in their opinion, the public would quickly realise the area served by the station.

A minor success was acheived by the UDCS in March 1934. At a meeting of the Traffic advisory committee to discuss the matter, Frank Pick, who was a member of the committee, stated that the LPTB would add the name Oakwood when, and if, the locality was further developed. They would then drop the name Enfield West, leaving Oakwood, when considering the question of renewing or changing the traffic signs. As a compromise, the Board would be prepared, when the situation arose, to adopt Oakwood in brackets, after the existing name. Subsequently, the station was renamed Enfield West (Oakwood) on 3rd May 1934.

At this stage, you may be wondering where East Barnet and Merryhills came into the picture. East Barnet had been put forward on the grounds that the East Barnet Road (now known as Bramley Road) ran alongside the station. Merryhills, as perhaps the name might suggest, is a Public House some 100 yards west of the station, although not a landmark as such.

A further 11 years elapsed with the name Enfield West (Oakwood) remaining, with no further progress having been made. However, in July 1946, the UDCS received a reply from the LPTB in answer to yet another appeal to have the station renamed. Part of the letter reads as follows:-

'Although the Board are still of the opinion that the present nomenclature is descriptive of the area served, they are prepared to meet your council's wish by renaming the station 'Oakwood' which has been the subsidiary title of the station for many years.'

'They do not, however consider that 'Merryhills' or 'Trent Park' are suitable names. The term Merryhills is unknown, while Trent Park is more associated with the area in close proximity to Cockfosters station.'

'As an alternative, the Board would be prepared to consider the adoption of the name 'Chase Side' but it has an important disadvantage in as much as it the name of the thoroughfare which runs from Southgate station northwards to Cockfosters station.'

'The Board would be grateful if the Council would kindly indicate whether they are in agreement with the suggestion that the station should now be renamed 'Oakwood'.....'

So ended surely, one of the most confusing and complicated renaming, of perhaps, any station on the LT system, when on 1st September 1946, the station was given its present name.

In my opinion, I would have preferred the following names, instead of the ones chosen:-

Manor House (Manor House)
North Harringay (Turnpike Lane)
Wood Green Central (Wood Green)
Wood Green North (Bounds Green)
Arnos Park (Arnos Grove)
Southgate (Southgate)
Southgate North (Oakwood)
Cockfosters (Cockfosters)

Obviously, this is a matter for speculation and members may wish to compile a similar list for their local sections of the LT system. I'm doubtful though, if they could come up with a more confusing and drawn-out saga than the Oakwood-Enfield West-East Barnet situation, although I'm open to challenge!!

Note: the Editor would be pleased to receive similar articles for other parts of the Underground system - offers please? Address on back page.

THE PUTNEY BRIDGE SUPPLY CHANGEOVER

B.J.Prigmore

The feasibility of line illustrations in Underground News facilitates an explanation of what was done, and what is now done, to bridge between London Transport supplies, which are nominally all-insulated, and Southern supplies (negative earthed) over Putney Bridge in particular, but near Turnham Green as well. Details are given for southbound: northbound is the same except that LT and SR are transposed relative to the arrows on the accompanying sketches. (Although the lines are referred to here as southbound and northbound, which is geographically correct, the lines are in fact officially identified as westbound and eastbound respectively.)

When the District was electrified to Wimbledon, the LSWR was still all steam, so Lots Road supplied south of Putney Bridge via Wimbledon Park Substation; no problems arose. In 1916 when the LSWR electrics, with three-rail, shared the East Putney-Wimbledon line, the d.c. supplies had to be separated, for the all-insulated LT supplies took up potentials of +400V and -200V relative to earth, whilst the LSWR required +600V and OV. (The LT voltages arise because the positive insulators are about twice the height of the negative ones, hence have about twice the leakage resistance.)

To allow District 8-car trains, with power bus lines connecting all the corresponding collector shoes, to cross the electrical boundary without losing supplies yet without solidly connecting the two supply levels, an 8+ car length of conductor rail was connected to the SR supply via resistances, and left separate from the LT supply, as in diagram 'A'. A train thus bridged the left gap on moving to the right, and the resistances prevented large circulating currents, thus giving only a 'partial negative earth' to the LT supply. When the train was, for a second or two, on the 8-car section, its supplies, just adequate for lights, heaters and compressors, came through the resistances, which much reduced the voltage (hence gave orange lights) but did not leave the train unlighted. As soon as the front shoes met the SR conductor rails, the train had full voltage again. The driver was supposed to shut off the motors on traversing the changeover section, as the resistances would drop too much voltage if they carried traction current.

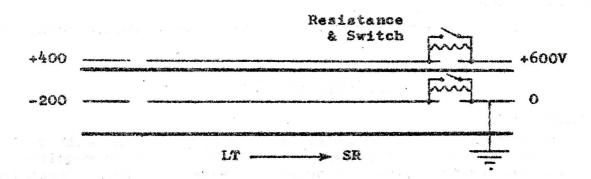
After 1950, when R stock with no power bus lines first entered service, the scheme resulted in pulses of full and low voltage as cars' shoes successively bridged the left gap, and, later, the right gap, for the cars still on the changeover section.

South of the changeover point there was no need for centre-rail insulation. Wood blocks were used instead of porcelain (see the classic SR photograph of Cromer Road signal box) and the centre rail was cross-bonded to the running rails.

To cover the possibility of a train stalling on the changeover section, knife switches which would short-circuit the resistances were installed (mounted in trackside switch cabinets). When a train had so stalled,

the switches were closed to enable the train to start (towards the new supply of course), and were then opened for normal service.

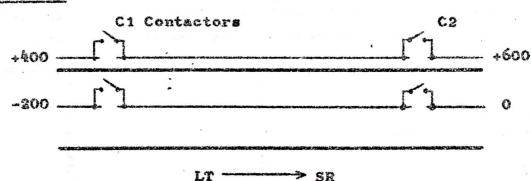
Diagram 'A'



When Durnsford Road Power Station (ex-LSWR) closed, Wimbledon Park LT substation was taken out of service and demolished, and the section supplied from the CEGB via the SR network and the new SR Wimbledon substation. Durnsford Road Power Station was demolished at the beginning of 1965. At about the same time, the centre-rail was re-laid on insulators; the writer does not know why. At about the same time also, the changeover arrangements were altered as shown in diagram 'B', so that the trainfectived either full-voltage supplies, or (for a very few seconds) zero, and so that there were no more partial negative earths applied to the LT system.

The new arrangement used track-circuit operated contactors C1 at the entering end and C2 at the leaving end. C1 are normally closed, feeding the changeover section from LT. As a train leaves the LT supply, a track circuit detects it and opens C1 and, a few seconds later (supposed to be 3 seconds, but seems more like one second nowadays) closes C2, and supplies the train from the SR. With MG or MA lighting (not traction-fed) one can only detect the changeover from the slight diminution of lighting or, sometimes the brief shut-off of traction power if the driver has not shut off plenty in advance.

Diagram 'B'



For a few weeks in the spring of 1979, there was no hiatus on the changeover, power and lighting being continuous, and giving slightly higher than usual speeds of attacking the 1 in 70 up to East Putney. This resulted in earnest enquiry by the writer and his friends: what ingenious circuiting had been developed to do this trick? What had actually arisen had been a fault in the contactor system! Pending repair, the contactors C2 had been kept closed, so giving a continuous supply to a train on the changeover section, but also putting good solid negative earths on the system every time a train passed over. Doubtless the supply people were relieved when the fault was cleared.

The writer is appreciative of the assistance of Mr.B.R.J.Hardy in supplying the correct dates.

ENGINEERING WORKS

1. Golders Green

Permanent way work on No.28 points at the entrance and exit to Golders Green depot on Sundays 30th September and 14th October required the Northern Line train service be suspended between Golders Green and Hampstead until 1100 on both dates. However, an industrial dispute by crane driver operators caused the work to be cancelled on 14th October, but the service alterations took place because it was too late for them to be cancelled. A diagram of the track layout was published in UN200 of the Golders Green and Hampstead areas.

Thus, before 1100 all southbound trainsreversed south to north at Golders Green in the centre platform, whilst all northbound trains reversed north to south at Hampstead, shunting north of the station. Generally, normal train service intervals were provided between High Barnet/Mill Hill/Hampstead and Morden shown below, while a special service was provided between Golders Green and Edgware.

The intervals (in minutes) up to 1100 (after which normal Sunday service intervals were resumed) were:-

Edgware-Golders Green: 15 (12 after 1000)

High Barnet-Finchley Central: 15 (12 after 1000), Mill Hill East-Finchley Central: 15 (12 after 1000), Finchley Central-Camden Town: $7\frac{1}{2}$ (6 after 1000), Hampstead-Camden Town: $7\frac{1}{2}$ -9, Camden Town-Morden via City: $7\frac{1}{2}$ (6 after 1000), Camden Town-Kennington via Charing Cross: $7\frac{1}{2}$ (6 after 1000).

Throughout both Sundays, Golders Green depot was scheduled to be closed with trains being used from other depots and sidings. However, although no trains were booked to enter service and stable at Golders Green, the depot was used due to the work being cancelled, on the latter date.

The trains in service throughout the day are shown below:-

	Normal Sunday	30.9.79 & 14.10.79
Morden depot	18	18
Edgware depot/platform	4	2
Golders Green depot	4	-
Golders Green sidings	4	2
High Barnet sidings	3	5
Highgate depot	3	9
Highgate Wood sidings	4	3
East Finchley siding	-	1
		-
Total	40	40

The above variations to the depot and sidings workings, made additional trains in service for stock balance purposes, as follows:-

High Barnet was balanced by one train each from Edgware depot and Golders Green siding (1334 and 1255 respectively) and Highgate was partly balanced by one train from Edgware depot at 1455. All these three workings were to Kennington via Charing Cross. Highgate was balanced late at night by the diversion of four trains (2159, 2211, 2223 and 2235 from Morden) to Highgate via Finchley Central (Mill Hill East for the 2235). The 2159 from Morden, which normally works the last southbound City train from Colindale to Morden (No.102) was covered by train No.3 from Edgware, which normally stables at Golders Green.

These special workings saw the use of the little-used crossover at Mornington Crescent. There were three early morning trains which reversed south to north and one late at night (all empty). This was to provide (in the case of the morning ones) trains for service from Hampstead which had to originate from Highgate. Similarly, the evening working was to get a train from the Edgware branch back to Highgate depot.

Between Golders Green and Hampstead, a special bus service operated, on both dates, provided by London Transport buses. A well-timed job of road resurfacing work outside Hampstead station on 30.9.79, caused much traffic chaos, affecting the bus service!

2. Ravenscourt Park

On Sundays 30th September, 7th and 21st October 1979, signal engineering work on the eastbound District Line at Ravenscourt Park, bridge D79, required that all eastbound District Line trains were diverted over the eastbound Piccadilly Line, thus omitting stops at Chiswick Park and Stamford Brook, until 0815 on all three dates. No substitute bus service was provided, and eastbound passengers at Chiswick Park and Stamford Brook were required to travel west to Acton Town or Turnham Green in order to travel east. Passengers travelling east to Chiswick Park or Stamford Brook were required to travel on to Turnham Green or Hammersmith and then back by westbound trains.

The number of trains diverted over the Piccadilly Line were four from Ealing Broadway and four from Ealing Common. The first train over the District Line track was the first eastbound from Richmond, which service starts at that time on a Sunday morning, thus not requiring any diversion to that branch service. The first eastbound train from Richmond leaves at 0816.

3. LMR, north of Amersham

BR permanent way work between Amersham and Aylesbury on Sundays 21st/28th October and 4th November, required the suspension of the DMU shuttle service between the two points until 1700 on each of the above dates. A substitute bus service was provided by United Counties, and was timed to connect into and from the LT trains at Amersham.

THE WORKING TIMETABLE - Part 2

A.B.Morgan

Abbreviations for Depots, Sidings, Platforms etc.

The abbreviations which are used in Rolling Stock Working section together with further details by line are given below.

Bakerloo

ECP - Elephant & Castle Platform (not specified)

ECS - Elephant & Castle Siding (SB and NB)

LR - London Road Depot

Q.Pk. - Queens Park Depot (Road Nos. 21, 22 and 23). Q.Pk.SS - Queens Park Depot South Sheds (SS in light type) St.Pk. - Stonebridge Park Depot CG - Croxley Green Depot.

Central

H - Hainault Depot.

HG - Hainault Depot (via Grange Hill). G in light type.

HH - Hainault Depot to Hainault Station via the shunting neck and depot road. H in light type.

Note: In general in the main timetable Hainault depot is regarded as east of the station and all trains enter service westbound via Grange Hill or via Hainault station and Newbury Park. However, the Hainault-Woodford ATO trains and the Epping-Ongar shuttles are shown entering service from the depot eastbound to Hainault station and then westbound via Grange Hill to Woodford.

L - Loughton Sidings (not numbered except 21 road. One train is shown ex-sidings via 22 road to Loughton station.

RE and RW - Ruislip depot (east end and west end). E and W in light type.

R23 - West Ruislip Station (23 road). 23 in light type.

WC - White City Depot.

Wfd - Woodford Sidings (not numbered).

Wfd (B) - Woodford Station (bay platform road). Shunts empty via WB loop and No.42 crossover to Leytonstone station. (B) in light type.

District

U - Upminster Depot.

Bkg - Barking Sidings (numbered 21-25 for District Line trains and 26E, 27E, 27W, 28E, 28W and 29E for Metropolitan No.1 Section trains.)

H.St. - High Street Kensington (Platform 4).

Hm - Hammersmith Depot.

TS - Triangle Sidings (numbered 34-38).

PG - Parsons Green Depot (sidings numbered 21-24, 27 two of, 28 and 29).

Wn - Wimbledon (platforms 1 and 2).

EC - Ealing Common Depot. E and W in light type are used to suffix the start and finish times to show the end of the depot.

Jubilee

N(K) N(N)Neasden Depot; see Metropolitan No.2 section for details. N(S)

St. - Stanmore Sidings (not numbered).

Metropolitan (No.1)

Hm - Hammersmith Depot.

ER - Edgware Road (platform 3, except on Saturday night when train is stabled in 26 siding and returns empty late Sunday evening to Hammersmith Depot. Note YP is shown against this working for the Drico test between Praed Street Junction and Paddington (Suburban)).

Bk - Baker Street and KX - Kings Cross appear obsolete.

FS - Farringdon Sidings (not numbered).

M - Moorgate Station (platforms 3 and 4).

Bkg - Barking Sidings (not numbered as they are in the District).

N(K) N(N)

N) > Neasden Depot; see Metropolitan No.2 section for details.

N(S)

Metropolitan (No.2)

- N(K) Neasden Depot via Neasden South, Klondyke Sidings and Neasden North.
- N(N) Neasden Depot via Neasden North.
- N(S) Neasden Depot via Neasden South.
- All Jubilee, Metropolitan No.1 and No.2 finish N(K) and N(N) via the washing plant except for one Inner Rail Circle train, Monday to Friday, which finishes direct N(S).
- Rk(S) Rickmansworth (South Sidings).
- Rk(N) Rickmansworth (North Sidings).
- Rk (23) Rickmansworth (23 Siding).
- Wf Watford (21 and 24 Sidings).
- WPS Wembley Park Sheds.
- Ux(E) Uxbridge Sidings via Hillingdon. The E (unbracketed) appears as a suffix to the start and finish times, and is also used in the Depot Working.
- M Moorgate Station (platforms 3 and 4, between peaks).
- L Liverpool Street Station (platform 3, between peaks).

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- A Aldgate Station (platform 3, between peaks).
- Am Amersham (used for Sunday evening coupling of three trains).
- All the bracketed suffixes are in light type.

Metropolitan (East London)

NX - New Cross Depot

Northern

- M Morden Depot.
- E Edgware Depot (including No.16 siding).
- GG Golders Green Depot (including loop, 24, 25 and 26 sidings to Golders Green Station, others suffixed (NG) indicating direct to and from Hampstead).
- HB High Barnet Depot.
- H Highgate Depot.
- HWS Highgate Wood Sidings (not numbered).

Piccadilly

- CF Cockfosters Depot. E and W in light type are used as suffixes to times to indicate end of depot used. Trains from 24, 25, 26, 32 and 33 sidings also run eastbound to Cockfosters Station to enter service and vice versa to finish service and the numbers bracketed in light type are used in lieu of the E.
- AG Arnos Grove Sidings.
- Hol Holborn Station (platform, between peaks).
- Nf Northfields Depot. E and W as for Cockfosters.
- Ux Uxbridge Sidings. Use of E as in Metropolitan No.2 is not indicated although used.
- SH South Harrow Sidings.

Victoria

- NP Northumberland Park Depot.
- W Walthamstow Sidings (numbered 21 and 22).
- V Victoria Sidings (numbered 22 and 23).
- B Brixton Sidings (numbered 21 and 22).

Train Service (Main Timetable)

The bulk of the Working Timetables are tabulations with the Train No's across the top and the principal stations, depots etc., down the side. The times are given to the nearest ½ minute. Times are normally departure unless otherwise stated. Times at termini or intermediate reversing points are arrival.

Normally the WB or NB timetables occupy the lefthand page and the EB or SB the righthand. The District and Metropolitan No.1 also show the Inner and Outer Rail Circle as appropriate. The Central, District, Metropolitan No.2, Northern and Piccadilly are repeated twice per page whereas the Metropolitan No.1 is repeated three times. The Victoria is reversed with the SB on the lefthand page and is also repeated three times. In the Bakerloo and Jubilee, the NB follows on from the SB and this format is repeated twice per page, whereas in the East London this format is followed, but three times per page.

The stations etc. are preceded by lines for Train No., No. of Cars (Central, District and Metropolitan No.2), Train Description (Metropolitan No.1 and No.2) - see below, Crew Running No. (Victoria) and Notes (from General Notes and Abbreviations). In the middle of the Bakerloo and Jubilee tabulations and at the end of the Victoria, the inverted triangle symbol appears to indicate crew stepping back. The last entry (except in the Victoria) is the 'To Form' departure time of the train in the opposite direction or 'Stop' with a restart time during the day or 'Stop' at the end of the day's service. In the Victoria, this is followed by the Crew No. during stepping back.

Where there are no lines for entries the details of depots, sidings, routeings and times are shown in the relevant column above or below the main entries as appropriate.

In each timetable there is a general section 'Routeing of Trains'. This normally only consists of one sentence and states that Signalmen and Regulators may vary routeing and platforms in the best interests of service which of course means variation from the timetable as printed. In the Metropolitan No.2 this is expanded to a full page to list the normal use of platforms at Wembley Park and Harrow and the use of lines Finchley Road/Wembley Park/Harrow/Watford South Junction. In the Piccadilly, the use of the local lines Hammersmith/Acton Town/Northfields is noted in this section.

There are also special sections in the District and Metropolitan No.2 concerning connections during all off-peak periods at Earls Court for trains booked in adjacent platforms and between Jubilee and Metropolitan trains at Wembley Park and Finchley Road. Staff are asked to endeavour to maintain connections.

There are certain additional entries which are peculiar to each line because of the workings involved and these are summarised below:-

Bakerloo

Stonebridge Park Depot dep. time, Reception Rd. No. and departure time from it. Queens Park (LMR) for BR trains only. Queens Park (Bakerloo) Siding No. In place of the Siding No., NP or SP are sometimes shown for trains reversing in the northbound or southbound platforms and NP is used below the time for two trains at Elephant & Castle stabling in the NB and SB sidings.

Central

North Weald, arrival time as well which is not used, presumably since the passing loop was removed. Arrival times as well also shown for Epping and Loughton. Hainault and Hainault Depot are duplicated for services via Grange Hill and Newbury Park, and the Platform No. at Hainault is included for the latter. The Platform No. at Ealing Broadway and the Road No. at West Ruislip also are tabulated.

District

Upminster, Whitechapel, High Street Kensington and Ealing Broadway Platform No's. (note, some trains reverse in High St. Kensington platform 2). Gloucester Road No.1 Platform for District WB and No.2 for Circle OR. and High Street Kensington IR and OR for Circle trains.

The Olympia service is tabulated separately showing a special service at intervals of approximately 15 minutes using two trains. Timings of trains working to and from Ealing Common Depot are announced in Traffic Circulars or Timetable Notices.

Jubilee

Stanmore and Charing Cross Platform No's are shown.

Metropolitan No.1

An additional entry in this and the Metropolitan No.2 timetable is a line called Train Description. This is normally one or two capital letters and indicates the destination in passenger service including the service to and from Edgware Road on the District. C is used for Circle trains and S for Staff or empty stock trains. BKN is used for trains destined for Baker Street and thence to Neasden Depot. AO from the Metropolitan No.2 Train Descriptions for an inner rail Circle train in service from Finchley Road and reversing at Aldgate and similarly WPO for Circle trains leaving service at Wembley Park.

Other entries particular to this timetable are Praed Street Junction passing time, Paddington (Circle Line) only. There is a general Arrival platform line above the "To form" entry.

Metropolitan No.2

The Train Descriptions are complicated by the fast train running. The one or two letter destination abbreviations are suffixed by numbers as follows:-

- 0 all stations
- 2 fast trains to Aldgate, Baker Street and Watford
- 4 fast trains to Uxbridge
- 5 fast trains on the Amersham and Chesham lines except those ex Neasden Depot entering service at Wembley Park.
- 7 fast trains Wembley Park to Amersham.

Note. S is used for Chesham shuttle entering service Wembley Park to Chesham.

BKE is used for an Inner Rail Circle train which runs empty to Baker Street from Neasden Depot and then shunts to Platform 6.

NE is used for some trains from both directions empty to Neasden Depot.

This timetable includes a general Departure platform No. line below the Notes and Baker Street arrival and departure times, times at Ruislip Siding for Piccadilly trains, Watford South junction passing times and a general Arrival platform No. as in the Metropolitan No.1 timetable.

East London

The only special entry in this timetable is the Canal Junction passing time.

Northern

Because of its complexity the Northern timetable has the most extensive number of special entries including some which differ depending on direction. For Morden there are listed Depot departure time, Reception Road No., Platform No. and departure time. Euston (City) only times are shown as are Finchley Central, High Barnet and Edgware platform nos. For Golders Green, Depot departure times, No.27 road times, Flatform Nos. and departure times are shown. In the Northbound direction at Kennington arrival times are shown together with the departure times from Platform No.1 via Charing Cross and No.3 via the City and at Camden Town departure times from Platform No.1 to Edgware and No.3 to High Barnet and Mill Hill East. In the other direction at Kennington arrival times are shown for Platform No.2 from Charing Cross and No.4 from the City, there being a general departure time. Also at Camden Town departure times from Platform No.2 for trains ex Edgware and from No.4 for trains ex High Barnet and Mill Hill East are shown.

There is a special section on 'Numbering of Trains'. Trains working via Charing Cross are numbered 1 to 56 in bold type and those via the City from 101 to 170. However, trains 5 and 22 ex Morden and 16 ex High Barnet on entering service make their first trip via the City and attention is drawn to this.

Piccadilly

Platform Nos. at Cockfosters, Arnos Grove, Uxbridge and Heathrow Central are shown and there are departure times at both Hammersmith and Acton Town from Platform Nos. 1 and 2 in the westbound direction and 3 and 4 in the eastbound. Times at Ruislip Siding are also shown. Turnham Green is shown for trains stopping early and late Mondays to Saturdays and all day Sunday. The Aldwych Branch Service is tabulated separately.

Victoria

In addition to the Platform Nos. at Walthamstow Central and Brixton, the Siding Nos. at Victoria are shown. At Seven Sisters the arrival and departure times, Platform Nos. and Siding No. are shown together with Reception Road Nos., Staff Platform and Depot times at Northumberland Park.

Working of De-icing Trains and Summary of Trips Authorized to Spray De-icing Fluid.

Certain trains are equipped to spray de-icing fluid from one of the trailer cars and the train numbers are suffixed D. These trains, when instructed spray over specified sections of the lines and these trips are denoted by two letter Notes as previously described. The intervals vary from $1\frac{1}{2}$ to 3 hours. The instructions are contained in Section 7 of the Appendix to the Rule Book. The sections and other special features are summarised below:-

Central

West Ruislip and North Acton, Ealing Broadway and White City, Epping and Leytonstone, Hainault and Leytonstone via Newbury Park, Hainault and Woodford, and Epping and Ongar.

Jubilee

Stanmore and Finchley Road.

Metropolitan No.2

Amersham and Finchley Road (Fast /Main Lines between Watford South Junction and Wembley Park), Uxbridge and Wembley Park (Local lines Marrow-on-the-Mill and Wembley Park) and Watford and Harrow-on-the-Hill (Local lines Watford South Junction and Harrow-on-the-Hill).

If the weather is severe special arrangements can be made between the Line Controller and Depot Engineer, Neasden for emergency refuelling with de-icing fluid at Uxbridge and Rickmansworth for extra trips. When uncoupling is cancelled certain alternative train numbers convey a de-icing trailer.

Northern

Edgware and Colindale, Hendon Central and Golders Green, High Barnet and East Finchley, Mill Hill East and Finchley Central.

Because of the vintage on the timetable 1972 MkII Stock is mentioned as well as 1959 Stock.

Piccadilly

Hounslow West (tunnelmouth) and Barons Court (Fast lines unless otherwise shown), Rayners Lane and Acton Town (one early morning train continues to Barons Court) and Cockfosters and Arnos Grove (excluding Southgate tunnel).

Calling Points for Staff Buses/Taxis

This section states that staff buses and taxis generally stop outside stations but stations are listed with the nearest calling points which staff are advised to note when this applicable. In some cases the nearest calling point applies in only one direction (the directions relating to that of the line) and others there are two or more different points. An example follows:-

STATION

DIRECTION

BUS CALLING POINT

Baker Street

NB to Neasden

SB from Neasden

To and from Queens Park Marylebone Road, opposite stn. Gloucester Place/Melcombe St. Baker Street, station entrance.

In the Metropolitan No. 2, Great Missenden, Wendover and Aylesbury are included. There are no references to calling points in the Northern and Victoria and in the East London no staff buses or taxis are timetabled.

In the Victoria, there is a special timetable summarising the departure times throughout the day of the staff train service from Seven Sisters and Northumberland Park (Staff Platform).

Scheduled Closing of Stations

The times and/or days of closing are stated in this section. The Northern states 'Strand station is closed !!

Special Arrangements for Football Traffic

On Monday to Friday evening and Saturday afternoons (1500 kick-off), certain trains are scheduled for service when notified by Traffic Circular or Timetable Notice for coping with football traffic. The majority of the trains are for return traffic unless otherwise indicated below and normally stand spare in the depots or sidings for use as required. By club, the details are as follows:-

Arsenal FC (Piccadilly)

On Monday to Friday evening 6 trains are timetabled to run when notified (351 and 311) from Northfields Depot to Wood Green and return, and four from Cockfosters Depot, three of them (265, 253 and 345) to Barons Court and return via Cockfosters station to the depot, the fourth (332) reverses at Acton Town, No.26 siding. One of the Barons Court trains from the finish of its evening peak service at Cockfosters station shuttles empty to Arnos Grove sidings, back to Oakwood, reversing in the eastbound platform, back to Arnos Grove sidings and then back to Cockfosters station before stopping in the depot for one minute before re-entering service westbound on the football service.

On Saturdays for forward traffic two trains (275 and 276) ex-North-fields Depot if used stable in Arnos Grove sidings and are available for return traffic, stabling back at Northfields. In addition for return traffic, three trains (360, 361 and 362) are available ex-Cockfosters Depot, returning there if used.

Chelsea FC (District)

On weekday evenings 5 trains are timetabled to run when notified, two 6-car trains (170 and 171) ex-Triangle Sidings, one 7-car (172) ex-Ealing Common Depot and one 7-car and one 6-car (173 and 174) ex-Parsons Green Depot. 170 starts and finishes service in platform 4, High Street Kensington and does two trips to Wimbledon, whereas 171 only starts there, does one trip and finishes at Earls Court. 172 starts at Acton Town, travels to High Street from where it does a round trip to Wimbledon then back to Ealing Broadway and then empty back to depot. 173 and 174 both travel from Parsons Green to High Street and back to Wimbledon, 174 leaving service empty back to the depot whereas 173 returns to High Street and then back to Parsons Green before leaving service.

On Saturdays, one 6-car train ex-Triangle Sidings, reversing in High Street platform 4 joins one 7-car at Parsons Green Depot where they stand spare. It returns to Triangle Sidings in the evening.

Millwall FC (East London)

On Saturdays, one 4-car train (174) stands spare in New Cross Depot for forward and return traffic.

Queens Park Rangers FC (Metropolitan No.1)

On Saturdays, two 6-car trains (235 and 236) stand spare in Hammer-smith Depot for both forward and return traffic.

West Ham United FC (District and Metropolitan No.1)

On weekday evenings three 7-car trains ex-Upminster Depot stand spare as follows:-

- 1) Train 1 in Whitechapel platform 4.
- 2) Train 31 in Whitechapel No.25 siding.
- 3) Train 4 in Barking No. 24 siding via Upney.

All restable at Upminster by 2230.

On Saturday afternoons three 6-car trains (237, 240 and 241) stand spare in Barking Sidings.

I hope this two-part article has not been too much of a catalogue (timetable!), has shown the comprehensive complexity of the Working Timetables, has brought to light some interesting workings and has stimulated some interest.

SIGNALLING ALTERATIONS

From Sunday 14th October 1979, a further stage in the modernisation of the Piccadilly Line signalling was commissioned, in that the Kings Cross area was converted to Programme Machine working, being

supervised from Earls Court Regulating Room. At the same time, the former GNP &B signal box at Covent Garden was closed, the crossover taken out of commission and the signals in the area converted to work automatically. The now redundant crossover is expected to be removed at a later date. The former controlled signals at Covent Garden retain their numbers but are now prefixed 'A' to denote an automatic signal. (Thus C1 is now A1, C2A is now A2A and so on). The section from west of Green Park to east of Russel Square has not yet been included on the Regulator's diagram at Earls Court, thus this section remains blank for the time being. At a later date, this section will also be resignalled so as to allow supervision from Earls Court (taking in of course the connection to the Aldwych branch at Holborn) making continuous track circuit indications as far as east of Kings Cross.

At Kings Cross, where the Covent Garden signalman was able to signal trains into the transfer loop to and from the Northern Line, or at Cobourg Street Regulating Room, these movements are now performed by the Earls Court Regulator. For trains proceeding into the loop from the Northern Line, the Earls Court Regulator has to give a 'slot' to Cobourg Street, so that the latter can clear the appropriate signals (J3B and J8). A diagram of the transfer loop and the Kings Cross area as a whole was shown on page 54 of UN207, and this remains unaltered.

PROTECTION OF TERMINAL STATIONS

Test Train at Cockfosters, Sunday 14th October 1979.

Following problems with the traction current control arrangements at Cockfosters which were introduced on Sunday 30th September, arrangements were made for a test train of 1973 tube stock to operate at Cockfosters on Sunday 14th October, 1979.

It had been found that trains were having difficulty in reaching the end of the platforms after coasting at the start of the traction current control area and also observing the 10 mph speed limits at the beginning of each platform.

In order to get a reasonable number of tests in a short a period as possible, all test runs were conducted between 28 road in Cockfosters depot and platform 4, which was reported as being the most problematical of the three platforms at this site (see plan on page 293 of UN215). With the 15 minute service operated from 1000 on Sundays, this allowed for a test run every 15 minutes without affecting passenger services to any degree.

A normal 6-car 1973 stock train was used, being numbered, north (east) to south (west): 157-557-357 x 424-644-224. The operation of the train was in the hands of a test crew who worked to the instructions of the Chief Mechanical Engineer's Engineer on board, who. in turn, collaborated with the Chief Electrical Engineer's representative, who had arranged the tests. Operating and Signal Department representatives also attended, though largely in advisory capacities.

Although traction current control is only normally applied to trains arriving on the eastbound main line from Oakwood, special arrangements were made to have traction control operative by operation of isolating switches in the control building.

A number of runs were made in the period 1030-1430 hours approximately and attempts were made to restart the trainboth from rest and from low speeds with varying value of resistance in the feed to the traction control section. The 'normal' resistance value was lowered

from 2 ohms to as low as 1 ohm by the addition of temporary resistance banks in the traction control building. Like brand new electric fires, these resistances tended to smoke, only more so as they were passing some 300 amperes and the heat produced for short periods was equivalent to about 20 or more domestic fires! At least one test caused quite an amount of smoke from the traction control building.

Generally, it was found that re-starting from rest or low speed was only possible in 'series' and attempts to start in 'shunt' resulted in the train rolling back along the up gradient into the station.

As a result of the tests, the value of resistance applied to all three platforms at Cockfosters has been reduced and, from Friday 2nd November the speed restriction signs at the platform ends were altered from 10 mph to 15 mph (this corrects the information given in the last line of page 292 in UN215.)

It is possible therefore, that other tests will take place at other traction control sites in the future, High Barnet being the next likely site, as the traction resistors there were not brought into use once the problems at Cockfosters were highlighted. The signalling controls at High Barnet have, however, been introduced from 7th October, although it was previously intended to commission traction control at the same time.

LEAF CLEARING 1979

Signalling Alterations

Due to reduced rail adhesion in the leaf-fall season (October to the beginning of December), additional safety measures have been introduced on the southbound Metropolitan Line between Chalfont & Latimer and Rickmansworth from 28th October 1979, to provide extended safety signal overlaps on the continuous down gradient. This has been achieved by installing key switches; one in Chalfont & Latimer Interlocking Machine Room and one in Rickmansworth relay room, each with two positions - 'normal' and 'extended'.

Under normal conditions, the keys are left in the 'normal' position and all signals perform normally, as before. The additional overlaps are provided when the key switches are in the 'extended' position, which allows signals A971 and JP1 approach controlled. Signal A971 between Chorleywood and Rickmansworth displays a yellow aspect only, when clear, but the red aspect will remain until a train is within 350 ft of it. If the signalman at Rickmansworth has previously cleared JP1, signal in advance, then A971 will clear to yellow without being approach-controlled. Similarly, JP1 will display a yellow aspect only when clear, but unlike A971, will not clear until an approaching train is within 2,500 ft of the signal, and has a 2-minute approach lock.

See opposite page for diagram of area affected by the extended over-laps.

Rolling Stock

1) Uxbridge line

The stock used this year for leaf clearing on the Uxbridge line was similar to that in 1978, being 1938 stock Ballast Motor cars L146 and L147, with Rail Grinding car RG802. Both Rail Grinding cars were taken to Neasden prior to leaf clearing, and RG802 was selected for the task, being the one in poorer looking condition, as RG803 was repainted in late 1978. RG803 remains at Neasden depot.

Trips are scheduled during the midday off-peak on Mondays to Fridays and midday on Sundays, as follows:-

Mondays to Fridays: Originating from Neasden depot, the train works to Uxbridge and then works two round trips to Acton Town before stabling in Uxbridge sidings for a lunch break. After, another trip to Acton Town is worked, but on return goes as far as Ruislip siding only and then back to Neasden depot.

On Sundays, the train works from Neasden depot to Uxbridge, and then works one trip to Acton Town and back, stabling in Uxbridge sidings for lunch. After, a further round trip is worked, this time coming back to Uxbridge before returning to Neasden depot.

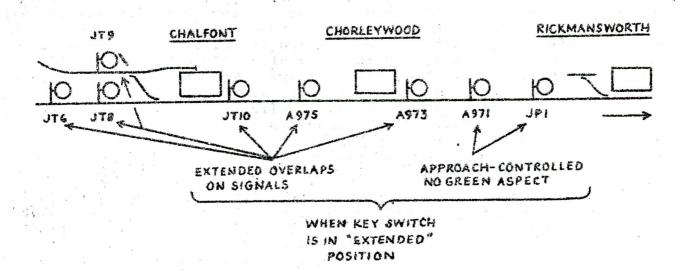
In addition, three trips are also scheduled to work on Sunday to Friday nights, but the crew's break is scheduled at Acton Town after 12 trips, instead of at Uxbridge.

2. Amersham line

The stock used for this section, which is very vulnerable to falling leaves causing delays to northbound DMUs, comprised Metropolitan Electric Loco No.12 (Sarah Siddons), Brake Van, Flat Wagon F311 with the leaf clearing equipment mounted on the wagon, and Weed Killer Ballast Motor cars L150 and L151. These two cars were provided for motive power at the south end and not for killing weeds!

Five trips were scheduled on Mondays to Fridays during the midday period (three before break and two after) and four on Sundays (two and two), between Rickmansworth and Amersham, starting and finishing at Neasden depot. One trip in each direction was also scheduled for Sunday to Thursday nights.

Diagram of Signalling Alterations Chalfont & Latimer to Rickmansworth, Southbound



ALL SIGNALS SHOWN ABOVE ARE 3-ASPECT NOT TO SCALE

Philadelphia - A smokey fire in the Broad Street Subway during the afternoon peak on 6th September caused minor injuries to 178 passengers. According to eye witnesses, sparks, smoke and flames began pouring from beneath the 6-car train as it entered Erie station. The train stalled with only two cars reaching the platform. Passengers remained calm following an initial explosion but when a series of smaller explosions followed, many panicked and began breaking windows to escape the crowded cars. The ensuing stampede caused most of the injuries. Authorities later attributed the accident to a snapped power cable on one of the 45-year-old cars which swung loose and began sparking.

Boston - Full-scale tunneling operations have begun on the Red Line extension north from Harvard Square. This section of the work will extend 2,770 ft from the Porter Square station to the Davis Square station. Most of the work will involve rock drilling and blasting with all excavation and concreting of the twin tunnels to be completed by 1st December 1980. The entire 3.5-mile extension, which includes three new stations and the reconstruction of the Harvard Square station, is scheduled for completion by mid-1983.

New York - The New York City Transit Authority has placed a special subway token on sale for a limited time to mark the 75th anniversary of the opening of the city's first subway line. Tokens are used to operate turnstiles on the system, which has a flat 50-cent fare. The new token feature a diamond-shaped cutout in the centre with an engraving of an original street entrance kiosk on one side and a replica of the first subway car on the other. At this late date, there has been no word from the NYCTA's public relations department on what, if any, commemorative ceremonies are planned for October 27th, the actual anniversary date.

San Francisco - The troubled Bay Area Rapid Transit District continues its traumatic history. The labour dispute which caused the system to shut down on 31st August continues, with no settlement in sight. However, some service was restored by BART using supervisory and managment personnel. In an effort to cut traffic on the overcrowded Oakland Bay Bridge, BART started a truncated service from Lafayette on the Concord Line to the 24th-Mission station in San Francisco. Six stations on the line - three at either end - remain closed, along with all stations on the Richmond and Hayward lines. Trains operate Monday to Friday from 0600 to 1800 using a total of 100 cars made up into 10 trains operating at 16-minute headways. Security was very heavy including security agents on every train and in every station - due to fears of sabotage by union members. A helicopter was also employed on the first day of service, 4th October, to keep watch over surface tracks. The intensive security highlights the bitterness of the dispute. So far, the number of riders is about 15% of normal and bridge traffic has not dropped.

Washington, D.C. - One of the most bizarre incidents in the annals of rapid transit occurred on 8th October. For still unexplained reasons, a train carrying 115 passengers took off from a station without the driver. The driver had briefly stepped off the train (all Metrorail trains are one person-operated) when the doors suddenly closed and, under computer control, the train departed. It operated in normal speed in tunnel sections, stopping at three stations with doors closed before departing. Finally, four stations down the line, Metrorail officials were able to signal to a female passenger to open the drivers's compartment door, which she was able to do by picking the lock with a hairpin. She then punched the door control switch, opening the doors and allowing employees on board. Officials denied the train

was a runaway and said that it would have continued to stop at the stations for the normal dwell time until it reached the end of the line when it would have gone dead. This author has quite the opposite opinion and feels that, if nothing else had occurred, possible panic by passengers could have led to numerous deaths and injuries. Metrorail's trains are operated by computer but doors must be opened and closed manually by the driver, who can also override the computer and take over in an emergency. Quite a story... one even BART can't top!

REVIEWS

Southern Electric 1909-1979, by G.T.Moody. Published by Ian Allan. 6" x 9", 280 pages, hardback with dust jacket. Price £6.50

This is the fifth edition of this book which is an update of its predecessors, the original first edition appearing in 1957. Items of Underground interest are the sections on the Isle of Wight (2½ pages), and Waterloo & City Line (2 pages). Although the book includes developments since the last edition (1967), a great opportunity has been missed in these sections in that they are almost identical word-for-word to the previous edition, with little or no update.

For the Isle of Wight, no mention has been made of the revised summer Saturday services (every 15 minutes instead of 12) including the Pier shuttle and track layout alterations connected with these alterations. Also, no mention is made of the revised livery of grey doors, the scrapping of some cars, and fire damage to another.

The Waterloo & City section seems to have a gap in its history from 1962 to 1975 and only one photograph illustrates the line. A more interesting and complete article on the subject appeared in the July 1979 issue of 'Railway World'.

However, these criticisms apart, the book is a comprehensive history of the complete Southern Electric network, probably impossible to document fully in 280 pages, and can thus be recommended for those interested in the system as a whole. Many new photographs are included.

LETTER TO THE EDITOR

Sir,

As a new recruit, I have recently received Underground News numbers 211 to 214 and read an article by Mr.E.D.Chambers, in reply to Mr. Borley's comments, regarding station names, with great interest.

I have spent the last three years or so collating information for a proposed historical diagrammatic map of the London Underground, showing all openings and closings of lines and stations and all station name changes. Whilst working on this project, a good number of anomalies concerning what I regard as the official names have come to light. For me the most curious name is that of CHORLEYWOOD, or is it CHORLEY WOOD? The station was opened as CHORLEY WOOD on 8.7.1889 and was renamed CHORLEY WOOD AND CHENIES on 1.11.1915. It subsequently returned to CHORLEY WOOD circa 1934. This I believe to be correct. All of the Underground maps, in my collection, prior to 1937 don't go out that far, its first appearance, once again in my collection, is on Number 1 1939 and shows CHORLEY WOOD. This remained the situation until and including the first of Paul E.Garbutt's fine designs, dated 1964. However, the next issue, strangely enough, changes to one word CHORLEYWOOD and this has been the case ever since, all the publicity and timetables do likewise. A visit to the station

will puzzle you however, as all the nameboards both inside and out show CHORLEY WOOD! The name of the locality was undisputedly two words but has evolved into one word over the years, Ordnance Survey maps confirm this, but to me this is of no consequence in the argument as to what is the correct official name. If we assume that CHORLEYWOOD is the correct accepted name for the locality and London Transport choose to ignore this and officially name the station CHORLEY WOOD, then that is their business. It is London Transport's prerogative to call their stations anything they like, there is no law stating that they must adopt the correct local name. It is the official name that London Transport have designated that concerns us and nothing else. You would therefore deduce that I regard CHORLEY WOOD - two words - as the correct, official name, well just to confuse you further, I don't. May I diverge for a moment.

Many station names have been changed, slightly, over the years by London Transport and their policy is and I quote 'Nowadays the official names of the stations always appears on the maps' - I wonder when 'Nowadays' commenced? They are adamant that TOTTERIDGE AND WHETSTONE is the correct official name for the station, but all that you will see on the site is TOTTERIDGE. So the rule holds good on that one, as a quick consultation to an Underground map will show.

Suffix dropping is very common, WEST RUISLIP (FOR ICKENHAM), BURNT OAK (FOR WATLING), HILLINGDON (SWAKELEYS), HOLBORN (KINGSWAY) etc., were all official names, but all still have <u>some</u> nameboards displaying the full name. For slight name changes such as these, it would be far too costly and quite unnecessary, except to maniacs such as myself, to replace these nameboards, so they remain until old age takes a hand. And it is for this reason that I regard CHORLEYWOOD as the correct, present, official name. I feel that London Transport have changed it from two words to one, probably around 1964, but up to now none of the nameboards have required replacement.

Just to confuse things further, ALDERSGATE AND BARBICAN was changed to BARBICAN on 1.12.1968, but all maps prior to this date show simply ALDERSGATE, 'for brevity' say London Transport. You see you are not dealing with one person's decisions and we don't adopt the same rules and more importantly most people don't care anyway. So what do you go by?

Yours sincerely, Douglas Rose.

London, N12. 14th October, 1979.

Any notes, comments or even articles on this subject would be very welcome. Ed.

FROM THE PAPERS

Daily Telegraph

6.10.79 Following the refusal of Essex County Council to pay £715,000 p.a. towards the £3 million loss on the Central Line in Essex, further details have been given by a GLC spokesman.

Hertfordshire was asked to pay £435,000 towards a £997,000 loss and paid £210,000, whilst Buckinghamshire was asked to pay £405,000 towards a £950,000 loss, and paid £121,000. In Bucks and Essex one mile costs as much as $1\frac{1}{2}$ miles in the GLC area, and in Herts one mile costs as much as $1\frac{1}{3}$ GLC miles. From 1st January 1980, one Essex mile will count as two GLC miles, a rise of $9\frac{1}{2}\%$.

In Herts, a $7\frac{1}{2}$ mile journey costs 70p, whilst in Essex a $7\frac{1}{2}$ mile journey now costs 90p, and will probably cost £1 in January.

- 8.10.79 The London Chamber of Commerce and Industry today called the Government decision to refer British Rail's commuter services in London and the South East to the Monopolies and Mergers Commission as 'inadequate and largely irrelevant'. The Chamber says that 'an ad hoc enquiry, which looks at one system of transport in isolation, is no substitute for effective day to day supervision'. It points out that in most metropolitan areas all forms of public transport are run by a single public transport authority, but this is not so in London, which is split by BR, the GLC and LT.
- 9.10.79 At about 0800 yesterday, a 14-year old girl was pushed in front of an eastbound train at Goldhawk Road station. She was detained in hospital with severe head and other injuries. A woman was being questioned at Hammersmith police station.
- 27.10.79 The painting 'Icebergs', by F.E.Church, found in a Manchester boys' remand home, fetched £1,168,224 at Sotheby's in New York on 25.10.79. This was bought in the 19th century by an M.P. on behalf of Sir Edward Watkin, who was chairman of the Metropolitan Railway from 1872 until 1894. The Church canvas seems to have been left over from his collection after his death at Northenden in 1901, when his house became a remand home.

The Guardian

- 22.10.79 The British Airports' Authority is to place an order for a 'Peoplemover' system with Westinghouse Electric (USA) for use at Gatwick Airport. A similar system is being considered by LT as an alternative to building a single track loop to connect Hatton Cross with Terminal 4.
- 25.10.79 The foam filling in polyurethane seats in LT rolling stock are to be replaced due to an unaccepteble fire risk. This involves the Piccadilly Line 1973 stock and the Jubilee Line 1972 Mk.II stock. The seat replacement scheme not only is for Underground trains, but also extends to most BR stock built in the last 20 years. The transport authorities were influenced by the death toll in the fire at Woolworths store at Manchester earlier in the year where burning polyurethane added to the problems. Even more so, a fire on the San Francisco BART system in January this year caused the death of one person and injured 56. The report into the BART fire, due to be published shortly, recommends that polyurethane should be banned from use in public transport.

Evening Standard

22.10.79 It is reported that LT have approached a Dutch property company to develop the £60 million interchange complex at Hammersmith.

Ruislip/Northwood Gazette

25.10.79 It is reported that approval has been given to build a three-storey office block on the site of Eastcote station car park. In addition to office accommodation, the amount of car parking space will be increased.

Sunday Express

21.10.79 An article in this issue describes the Crystal Palace Pneumatic Railway and how the London Underground Railway Society are trying to locate the railway. It states attempts are expected to restart shortly in trying to find the line using a computer operated electronic machine.

SOCIETY SECTION

Meeting Room - Hammersmith Town Hall

In view of the steadily-rising attendances at Hammersmith meetings (a reflection of the steadily-rising membership), and the overcrowding that has resulted when we have had to use rooms 203 or 217, the committee has decided to experiment by booking the Small Hall on the ground floor of Hammersmith Town Hall for the December 1979 meeting, and all meetings from January to June 1980 inclusive, except February. The Small Hall was already booked for the date of our February meeting, so we should be in room 212 on that occasion unless we are doubly unlucky.

Hammersmith Council classifies rooms 203, 212 and 217 as committee rooms, and although we have asked to be given room 212 whenever possible, we have no redress if we are given room 203 or 217 instead, when room 212 is wanted for another meeting. On the other hand, all these committee rooms cost us the same fee, so it can be considered that we are getting a bargain with room 212.

The Small Hall will cost nearly five times as much as a committee room, and the LURS committee would be interested to know members' opinions on the change of venue. Would you please send your comments to the Secretary, 6 Launceston Gardens, Perivale, Greenford, Middlesex, UB6 7ET, to reach him not later than 20th February 1980.

Family Membership

Following the announcement in UN212, page 224, we are obliged to members who sent in their comments on this proposal.

After considering all aspects of the proposal, the committee has decided to take no further action, principally because of the very limited potential demand.

Society Sales

The following items are now available from the Assistant Sales Manager, 21 Chestnut Grove, South Ealing, London W5 4JT.:

London Bus Magazine, No.30, Autumn 1979. Price 60p.

West Midlands track map, which embraces the PTE area of Coventry, Birmingham, Stourbridge and Wolverhampton. Although not strictly related to the Underground, it makes a worthy addition to the other set of maps currently published by the Quail Map Co. The connection to the main line from Metro-Cammell's is also shown. Price 65p.

RT - The Story of a London Bus, published by Capital Transport. Highly recommended. Price £11.75.

London Country Buses and Green Line Coaches, 1979 edition, published by Capital Transport. Price £1.50.

Further to UN213, page 239, the Underground line badges are 38p each.

Society badges are now 60p. The Society key fobs and tie clips remain unchanged at 75p each.

Members are reminded that orders over £1 are post free.

Posting of Underground News No.215

Underground News No.215 was posted on Sunday 21st October 1979.

Society Officers

Members are reminded that the last complete list of Society Officers and their addresses appeared in UN212, pages 222/223.

End of Financial Year

All officers and members holding funds belonging to the Society, or being owed money by the Society, are asked to send their remittances and claims respectively, made up to 31st December 1979, to the Treasurer, 6 Launcestion Gardens, Perivale, Greenford, Middlesex, UB6 7ET, to reach him not later than 7th January 1980. Membership subscriptions should not be sent to the Treasurer but to the Registrar - see below

Subscriptions for 1980

Subscriptions for 1979 expire on 31st December, and we should be grateful if members would renew their subscriptions by that date, sending them to the Registrar, 67 Weltmore Road, Luton, LU3 2TN.

The rates for 1980 are £6.50 for full members and £4 for associate members (aged 12-15 years inclusive on 1st January 1980), with a supplement of £2 for overseas members to cover extra postage costs.

Renewal notices were sent with the November issue of Underground News, but if you have mislaid your copy, please ring the Treasurer on 01-997 6346 for a further copy.

A MESSAGE TO MEMBERS - FROM THE CHAIRMAN

One of the most important functions of the Society's Committee is to decide how to provide the best service to members. Out of a membership of over 500, about 10% attend the monthly meetings and about 10% make use of the visits arranged to LT installations and other places. The only service regularly received by all members are the publications. In this respect the Committee is anxious that members should receive a regular publication which will help them in their study of the London Underground railway system.

In the past, there have been numerous difficulties in running a production team which is capable of producing a monthly news publication. About two years ago, a gradual improvement began, which enabled the Society to produce Underground News on a regular monthly basis under the editorship of Brian Hardy. The publications team responsible for Underground News has to edit, type, print and distribute it and it is due to their hard work and endurance which is responsible for the regular arrival of our monthly publication. In organising Underground News in this way, the publications team have largely been responsible for the rapid increase in membership in the last two years, because a Society such as ours is judged by its publications.

The yardstick which the Committee uses to allocate resources is based on the fact that the total sum of members subscriptions has always been swallowed up by the cost of producing the journals. The ever present evil of inflation has meant that we can only just make ends meet in this way. All other expenses are covered by sales profits and donations. The energy and determination shown by the Sales Manager and his team have provided the bulk of our remaining income. We will be able to continue in this way only if the dedication shown by the few who work so hard to give us the journals and sales profits continues as it has done in the past.

The problems of producing 'UndergrounD' are probably well known to most members. Suffice to say here that another team was needed to produce it, and it proved very difficult to find enough helpers until recently. In the last year, 'UndergrounD 5' took far too long to print and cost about £400 to produce. Enquiries suggested that more reliable printers would cost about £700. To produce four issues

of 'UndergrounD' a year at this price would swallow up the bulk of our subscription income. We have therefore had to reconsider the whole question of publications. After lengthy discussion, it has been decided to continue Underground News unchanged - it works well, why change it? 'UndergrounD' will also continue but it is hoped to reduce costs somewhat by doing our own camera ready artwork. This will mean there will be changes in format so that costs can be kept to a minimum. In addition, if it is not financially or physically possible to produce four issues of 'UndergrounD' during 1980, additional 'Supplements' to Underground News will be produced, similar to the one produced for the Jubilee Line opening.

It is hoped that eventually it will be possible to produce 'Under-grounD' regularly four times a year. In the meantime, the Committee will continue to try to expand the Society's interests and facilities in spite of the concerted efforts of our main enemy-inflation.

P.R.Connor, Chairman.

LONDON UNDERGROUND ROVING

As mentioned on page 62 of UN207, from the date of the public opening of the Jubilee Line, the Society made itself available to check and supervise attempts to travel to all LT-served stations in the shortest possible time.

We are pleased to announce that, following much detailed preparation by both the Society and the attempters, a successful attempt on the record was made on 18th October 1979, when a group representing the 'Pennies from Heaven' money-raising organisation for children's charities travelled through, from or to all stations in 19 hours, 25 minutes. The successful members of the group were Dr.Peter Altman (leader), Marilyn Nathan and Ralph Cramer. A fourth attempter, Lesley Davis, was compelled by physical exhaustion to take a lift in a car for the last inter-line connection of the tour, and so did not qualify for the type of attempt that the Society reports to the Guiness Book of Records, for which such connections must be made by bus or on foot.

The Society regarded the previous record of 15 hours set by L.R.V. Burwood in 1968 as out of date because of subsequent extensions to (and deductions from) the Underground network.

Following the request for volunteer checkers in UN207, the Rovers Sub-Committee was reconstituted as Messrs. M.J.Sherman (Secretary), D.O.Hayward and N.H.G.Mitchell, and a meeting was held with all volunteers to discuss methods of checking. Several prospective attempters have spent hours in the Society's library evolving a timetable (which must be submitted to the Society in advance.)

As soon as Dr.Altman's timetable was received, and a date given for the attempt, a further meeting was held, at which checkers agreed to meet and travel with the party at certain points on the itinerary (the details were naturally not disclosed to the attempters). Two members were also appointed 'controllers', one daytime and one evening, to act as a clearing-house for information on the progress of the attempt.

When the day arrived, the Society's organisation worked very well, and the Society was quite satisfied with the authenticity of the attempt. The attempters lost half an hour by the end of the morning peak because of a Bakerloo Line train failing and thus delaying their access to the Metropolitan Line, and subsequently another 10 minutes were lost by a delay on the Piccadilly Line. The final stages of the

attempt were hair-raising, as success was on a knife-edge, but all connections were made, and the party arrived at Upminster on the last train, having left Ongar on the first.

As working out the timetable is part of making the attempt, no further details of the itinerary will be disclosed.

The Press took a considerable interest, and the two London evening papers had fairly extensive coverage on 18th October, and a note of the result on the 19th. The Radio 4 Today programme gave details of the proposed attempt at 0750 on 19th October, and asked Dr. Altman to 'phone in with the result', which he did before the programme finished. Suburban newspapers in the Edgware and Upminster areas also expressed interest (two representatives from a Romford paper met the train at Upminster), and there have been mentions on Radio London and LBC. Finally, Dr. Altman had published in the Evening Standard a letter of thanks for all the assistance and encouragement given by LT staff and members of the LURS, and it is possible that checkers and attempters will meet again on a social occasion.

Thanks are due to all Society members involved in the successful outcome. The checkers were Messrs. Croome, D.F. and N.I.D., Dyckhoff, Hayward, Hodgson, Mitchell, Panting, Robins, Sherman, Wragg, the controllers were Messrs. Connor and Croome, D.F., whilst Dave Hayward did a great job as Press Officer, and Nick Mitchell as Society Librarian. Mr.Hodgson gave the use of his flat for the final pre-attempt meeting, and D.F.Croome filled in with some liaison work.

Any members wishing to attempt the record should contact Mike Sherman at 25 Queen Elizabeth's Drive, London, N14 6RH, for a copy of the rules, but attempters must be warned that preparing an itinerary requires time and effort, and making the attempt requires good organisation, good health and good luck.

DFC, 25.10.79.

CORRECTIONS

To UN215

Page 304, CO/CP stock transferred to Ruislip on 5.9.79, the east end DM should read 54246.

Page 306, NF2485, the eastbound describer has, apparently been in use for about a year.

ROLLING STOCK ALTERATIONS, October 1979

Due to lack of space in this issue, these will be deferred until the January issue of Underground News.

NEWSFLASHES

These too, are reduced in number in this issue, due to space problems, much more to come in January issue.

- NF2530 It has been observed that the advertisement hoardings at Kilburn station between the northbound Metropolitan line and the up BR line to Marylebone had been removed, save for the basic structure, cm 27.10.79. By 10.11.79 however, new panels were in position, awaiting adverts to be applied.
- NF2531 Electric stock manufactured by Metro-Cammell is to be tested before it leaves the premises, in a new building being built for the purpose. It will contain three tracks, two being standard gauge and the other being variable.

It is reported that BR (SR) may purchase some trains of 1938 tube stock for the Isle of Wight when the trains, currently operating on the Bakerloo Line are made redundant in about 1983. New ATO 1983 tube stock will be delivered for the Jubilee Line which will mean the Bakerloo Line getting the 1972 Mk. II tube stock. It is not yet known how many cars or trains will be involved, but being in semi-permanent unit formation, reforms will probably be less likely than they are now with the Pre-1938 tube stock, which has 'Ward' couplers between each car. A disadvantage with the 1938 stock is that if the plans go ahead, the stock will all be 41-45 years old. This is different from the Pre-1938 stock as, although the oldest cars (1923 Cammell Laird) were 44 years old when they went to the Island, the later cars (1934 Metro-Cammell) were then only 33 years old. Of the existing fleet of 1938 tube stock on LT, all but a handful of cars were delivered during the period 1938-42, with only 10321/11321 (1946) and 012413/012414 (1947) delivered after the war. (Enthusiasts' day dream - in blue/grey livery? In service alongside Pre-1938 stock?) Full marks to BR (SR) on planning to continue its electric working museum!! It is now unlikely that any further extensions will be considered, as the up platform line and south shunting neck at Shanklin has recently been removed.

AT THIS TIME OF THE YEAR

On Monday 5th November:

Observed at Baker Street (Met) station late evening on the above date - a guard with long hair and clothes that far from resembled a uniform, complete with a flat (andy) cap. Overheard from one passenger to another - 'Guy Fawkes is alive and well, and is employed on the Metropolitan Line.'!!

Big Brother to Little Brother:

'The centre rail's for the electricity and the other one for the brake.' !!

And, Finally:

The Publications Sub-Committee and the LURS main Committee wish all members a happy Christmas and a prosperous and informative new year.

The Editor wishes to express his gratitude to all members who have contributed items and articles for Underground News during 1979, and I hope your support will be continued (even more!) during 1980.

Underground News is printed and published by the London Underground Railway Society. Correspondence for this journal should be addressed to the Editor Underground News, 13 Castleton Road, Eastcote, Ruislip, Middlesex, HA4 9QQ. Members requiring a reply to their correspondence are asked to enclose an SAE.