

UNDERGROUND NEWS

NUMBER 231

ISSN 0306-8617

MARCH 1981

THE TIMETABLE

Sunday & Monday 1 & 2 March

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

Sunday 1 March

LT & SR Celebrations. Morning event: Special HST excursion train from Southend Central via Tilbury to Liverpool Street, and back via Upminster.

Wednesday 4 March

Departure of Society party to Paris. Fully booked.

Saturday 7 March to Saturday 28 March (except Sundays)

LT & SR Celebrations. Exhibition at Southend Central Library. Open during normal library hours. For further details, see UN 230, page 66.

Tuesdays 10, 17 & 24 March

LT & SR Celebrations. Evening lectures on railway subjects at 1930, at Lecture Theatre, Southend Central Library.

Thursday 12 March

Members are invited to a meeting of the Wight Locomotive Society. Talk, 'The Future of London's Transport' by Mr.M.Foulkes of the G.L.C. 1900 at the Abbey Community Centre, Marsham Street, SW1.

Friday 13 March

Talk 'Liverpool's Underground' by Mr.B.R.Hardy. 1900 for 1915 at the Tudor Room, Caxton Hall, Caxton Street, SW1.

Saturday 21 March

'O' Gauge Tram Group Annual Film Show at the YWCA Central Club, 16-22 Great Russell Street, London, WC1B 3LR. Nearest station: Tottenham Court Road. Admission: 1430-1700 50p adult, 25p child; 1430-2100 (film show starts at 1700) £1 adult, 50p child.

Further Timetable items appear on the next page.

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The Timetable (Continued)

Saturday 28 March

At 1015 in the Small Lecture Theatre, Science Museum, Exhibition Road, South Kensington, London, SW7. Slide/film show, mainly of Underground material not previously shown to members.

To find the Small Lecture Theatre, please enter from Exhibition Road and walk straight through the ground floor until you see the 'standard stock' tube car. At this point, keep over to the right and go down a staircase. At the foot of the staircase keep straight on for a few yards and the Small Lecture Theatre is on the right.

Please note: (i) the doors of the Museum do not open until 1000, (ii) no smoking is allowed in any part of the Museum, (iii) it will not be possible to leave any possessions in the theatre during lunch time, as it must be vacated by 1215 for a public lunch-time film show, (vi) there is a snack bar on the top floor of the Science Museum, but the restaurant and snack bar at the Victoria & Albert Museum in Cromwell Road are recommended for high quality (and high price!) food and drink.

Saturday 28 March

At the same location as above: Annual General Meeting. Members MUST produce a 1981 Membership Card to gain admittance. See separate announcement on page 85 of this issue. Time: 1400 for 1430.

Wednesday 1 April

Members are invited to a meeting of the Electric Railway Society, which is a Presidential Address by Mr. J.K. Wright, Underground Engineer, Strathclyde P.T.E., entitled 'New Wine into Old Bottles - The Glasgow Underground'. 1900 at Fred Tallant Hall, 153 Drummond Street, NW1. Nearest stations: Euston Square, Warren Street or Euston.

Friday 10 April

Talk, 'An LT Group Manager's Duties', by Mr. J.T. Reeves. 1900 for 1915 at Caxton Hall.

Monday 13 April

Library Evening, 1830. Other details as for 1/2 March.

Saturday 11 April

Auction of transport relics, presented by the London County Council Tramways Trust. 1400 for 1430 at Bonwell Street depot, Digby Street, Bethnal Green. Admission by catalogue, 10p. Catalogues obtainable in advance from 42 Ravensbourne Road, Catford, London, SE6 4UX, enclosing a 10p stamp and foolscap SAE (for postal bidding).

Sunday 12 April

Provisional: The Society will be operating its Sales Stand at the Cobham Bus Museum. Further details when available.

Sundays 12 & 19 April

LT Rail Tours, using CO/CP stock, from about 0930 to 1830. Full details from the LT Commercial Office, 55 Broadway, SW1H OBD. Prices: £4.50 on 12th April, £7.50 on 19th April. As well as travelling to District Line destinations, the tours will also include New Cross depot, Uxbridge and Olympia.

Tuesday 12 May

Library Evening, 1830. Other details as for 1/2 March.

JANUARY 1981 CAXTON HALL MEETING

The Society's first meeting for 1981 was on Friday 9th January, and was an illustrated talk given by Dr. H.L. Clarke entitled 'Bar and Circle' and covered the different types of LT station name signs using this design.

Dr. Clarke first explained that the talk was devoted to station names on a bar-and-circle device, and did not include signs of the Metropolitan Railway.

The first signs covered the early UERL solid circle type, and these comprised two red half circles with a blue enamel plate over, having a wooden moulding. These were manufactured by Chromo of Wolverhampton. It was then explained how stations had been renamed over the years, and how the replacement nameplates were in standard Johnston lettering.

Types of solid circle District Railway signs were shown; at Mansion House (1910, installed when the station was rebuilt), and Baling Broadway, of 1908 origin.

Dr. Clarke stated that Johnston lettering was probably first used in the renaming of Great Central to Marylebone in 1916; however, the only use of this in new signs, still in original condition, is at Turnham Green, the originals of the Registered Design No. 659,814 and having red mouldings. These signs comprised two metal sheets with the station name at the top of the lower sheet, the moulding being screwed over the top.

The various forms of displaying the Registered Design numbers were then detailed, on the Edgware extension and reconstructed C & SLR stations. Variations to the standard form of sign were described, which included crossed uprights on the letter 'W' at Edgware, North Baling with the station lighting incorporated, and oddities at Earls Court and Barons Court, comprising one wide sheet. The signs at Queensbury, recently replaced, were unique in having the blue bar containing the name one inch proud of the sign.

Further developments of this type of sign were the three-sheet variety, one of which was illustrated at Monument, and how the top sheet could be utilised for supplementary signs (such as 'Way Out').

Temporary wartime wooden signs were described, and these were used to supplement existing signs on some ex-Metropolitan Railway platforms. These were made from wooden planks with one inch wooden mouldings and were hand-painted by signwriters. These were fitted to every fourth lamp post and in addition to the Met. Railway diamond sign at every fourth lamp, gave a sign at every second lamp post. All were replaced by 1951. These were originally made necessary due to the restricted view from trains with netting on the windows, and reduced lighting.

The signs of the 659,814 design were widely used throughout the Northern Line in the 1920's, but at the C & SLR two-track island platforms at Clapham Common, Clapham North and Angel (and also Euston until about 1967) double sided signs in tubular frames were used.

The development of the station name sign over the years, with a standard first introduced in 1932, were described, together with the oddities at Sudbury Town, Cockfosters and Uxbridge, and these were featured in an article by Dr. Clarke in UN 228, page 365, to which readers are referred.

Oddities of the standard signs included wooden boards at North Weald, painted frames at Ongar, and glass signs for the Festival of Britain in 1951.

Dr. Clarke concluded his talk by taking us right up to date, with the bar-and-circle on a white metal sheet with no lining, the illuminated version of this on the Victoria Line, and the Jubilee Line illuminated 'cut-out' sign.

An interesting question and answer session then followed, with an appreciative vote of thanks to Dr. Clarke for such an interesting talk on a much neglected subject.

SIGNALLING STATISTICS

by V. Eadman

Occasionally - very occasionally - one sees published statistics concerning the number of items of signalling equipment on the Underground. Usually, however, they are so tantalisingly vague as to be virtually useless. So, at the end of 1979, just for fun, I ploughed through all my notes and drawings and compiled my own statistics, and these are shown below. I must explain that they are my own estimates and I have not attempted to cross-check them with London Transport, though I would doubt whether they are able to provide as detailed a breakdown as that shown. The task was very complicated as can be imagined, and in fact was spread over some three months. I did, however, work to a base date, namely 1st January 1980, consequently the numbers may be out of date by the time this is published, consequent upon the continuous signalling modernisation programme including the protection of terminal stations, depot exit roads etc.

SECTION A - RUNNING SIGNALS

(1) Stop signals

Semi-automatic:	1134
Automatic:	1871
Total:	<u>3005</u>

Of these signals, 38 semi-automatic signals are 2-aspect 'draw-ahead' signals and 25 semi-automatic signals are 3-aspect 'draw-ahead' signals. The total also includes the multiple aspect signals on the Metropolitan Line north of Harrow-on-the-Hill.

(2) Repeating Signals

Of Semi-automatic signals:	410
Of Automatic signals:	797
Total:	<u>1207</u>

Of these, 228 repeaters of semi-automatic signals and 366 of automatic signals are situated below stop signals and have their signal aspects extinguished (or 'suppressed' to use the technical term) when the stop signal above is at danger. Furthermore, there are 200 signals which repeat two stop signals, 30 which repeat three stop signals, 9 which repeat four stop signals and 2 which repeat five stop signals. 89 automatic stop signals and 52 semi-automatic signals are repeated by two repeaters, 7 automatic and 3 semi-automatic signals repeated by three repeaters and 2 semi-automatic signals repeated by four repeaters.

There are also 11 fixed yellow repeating signals (6 of semi-automatic and 5 of automatic signals).

(3) Fog Repeating Signals

Of Semi-automatic signals:	326
Of Automatic signals:	393
Total:	<u>719</u>

106 fog repeaters of semi-automatic signals and 73 fog repeaters of automatic fog signals have suppressed aspects when the stop signal above is at danger. 23 fog repeaters repeat two stop signals ahead, and only two controlled signals are repeated by two fog repeating signals.

(4) Junction Indicators (outdoor type)

1 row of white lights (2 routes):	102
2 rows of white lights (3 routes):	20
3 rows of white lights (4 routes):	2
Total:	<u>124</u>

(5) Junction Indicators (tunnel type)

1 row of white lights (2 routes):	12
2 rows of white lights (2 routes):	2
Total:	<u>14</u>

SECTION B - SUBSIDIARY SIGNALS (disc type)

Shunt signals:	632
Draw ahead:	3
Calling-on	12
Warning:	6
Total:	<u>653</u>

Theatre-type Route Indicators: 210

SECTION C - MISCELLANEOUS SIGNALS

Headway Posts (Victoria Line):	32
Road Traffic Signals (Neasden):	2
Shunt signal repeaters (disc type):	2
Stop signal repeaters (banner type):	2

SECTION D - TRACK CIRCUITS

Controlling automatic signals:	3866
Controlling semi-automatic signals:	3026
Total:	<u>6892</u>

SECTION E - TRAINSTOPS

No details. A difficult statistic to compile, bearing in mind that certain shunt signals have no trainstop (e.g. at Uxbridge) and that some shunt signals are located at a stop signal, thus 'sharing' a trainstop. In any case, this statistic is practically worthless in view of the current programme of installing 'blind' speed-controlled trainstops at terminal stations and sidings, etc.

SECTION F - POINTS

Power-operated points, sets:	1125
Trap points:	36
Spring Toggle points:	12
Loose points:	1
Moveable angles, sets:	7
Spring trailing, power facing, sets:	2
Total:	<u>1183</u>

THE WATERLOO AND WHITEHALL RAILWAY

by Paul Hadley

The evolution of an underground railway system as a commercial proposition began in 1863 with the opening of the steam-operated Metropolitan Railway. However, the development of the 'tube' railways occurred in 1890 with the opening of the City & South London Railway. To this day it remains one of the few Underground links to the south of the River Thames. This railway was to have been cable-operated, but was converted at the last minute to electrical operation.

Both of these are very well known and documented facts, but they were not the only types of motive power that were considered. Neither was the C & SLR the first 'tube' railway, for the Crystal Palace Pneumatic Railway opened in 1864 (for details see UN 214 page 252). This successful, if short-lived project was, however, only the pilot scheme for the Waterloo and Whitehall Railway. The company proposed, in their prospectus issued on 8th June 1865, an ambitious scheme with a station located near Waterloo station - in York Road. The proposed tunnel was to have run almost parallel and to the south of Hungerford Bridge, and to curve slightly to bring it into the station at Scotland Yard. It was also hoped that the line would be extended to Charing Cross station, soon to be opened by the Metropolitan and District Railway. Their hopes were two-fold; namely, to increase the number of passengers and to save the cost of building a completely new station!

The recurring problems of finance were just as acute in the mid-nineteenth century as they are today, and these eventually defeated all efforts to build this novel and undoubtedly useful line. Although the prospectus claimed the costing as being no more than £135,000, nevertheless, costs were later anticipated to go above this and it was proposed to sell additional shares to the 13,500 £10 shares originally issued.

The optimistic entrepreneurs were told that the shares would gain at least 10% per annum, based on a daily 7 a.m. to midnight service, at 15 trains per hour. Each train would convey five first class passengers at 2d, and 20 second class passengers at 1d, giving a revenue of £23,268 per annum, from which 30% depreciation would be deducted.

For those unfamiliar with the mechanics and advantages of atmospheric railways, it is surprising to find that the trains were to be blown through the enclosed tunnels by stationary fans or windmills. No locomotive was required, and, with a new valve, the pressure used at Crystal Palace of 120-160 PSI would be reduced to 3-4 PSI. It would be smaller (presumably tube stock bore), and would be suited to the short nature of the line. Apart from this, inclines and curves would be easily negotiated as they had proved at Crystal Palace; it was also smoke-free and ventilation would be good.

The patentee, Mr. T. W. Rammell, acted as he had before at Crystal Palace as the engineer. It is interesting to note that he received his payment in shares. The line would pass Vine Street and College Street in a brick-work construction made by Tom Barnes & Co., and on the other side of the river likewise. The method of traversing the river was to be by dredging a trench out of the Thames and then to lower and secure into it a water-tight iron tube constructed specially by Mr. Samuda & Co. of Poplar. The steepest gradient was to be 1 in 30 and no houses needed to be demolished, although the builders accidentally damaged a couple to which repairs were effected and 'no serious cost was involved'.

Unfortunately, Minutes of the first half-year are unavailable, but those of the second meeting have survived. It was held in the Company's office at No. 7, Whitehall Chambers, Victoria Street, Westminster, on 2nd September 1866. It had several influential directors. One was the Chairman,

the Hon.R.Dutton M.P., and another was Mr.C.Mortimer, both were directors of the L.S.W.R.

The scheme was already in jeopardy as the Chairman explained at the third meeting on 7th December 1866; and after Parliament had reviewed the situation in January 1867, the fourth meeting was held on 1st February 1867, when the financial position was declared thus:

<u>Dr.</u>		<u>Cr.</u>
£ s d		£ s d
64361 0 0	Deposit and Calls	Amount Spent 55972 0 1
+ 4624 0 0	Payment in Advance	Office Costs 93 4 7
<hr/>		Deposit + 131 2 7
68985 0 0		<hr/>
+ 622 16 6	Interest	56196 7 3
<hr/>		Transfer fee - 10 0
69607 16 6		<hr/>
		56195 17 3
		Land Commission 8756 0 0
		Interest + 4655 19 3
		<hr/>
		69607 16 6

The final record of the Company is the sixth half-yearly meeting on 13th February 1868. At this meeting the Company officially went into liquidation.

This pioneer scheme failed, for the public were unable to appreciate the potential of this form of underground railway, and it is ironic that at the time of this failure, the more conventional Metropolitan Railway were quoted at £40 a share!

STATION NAMES

by A.Leonard

Having recently compiled a chronology of passenger rail stations in the Greater London area (1836-1977) and as a former Editor of VIZ (Journal of the Names Society), I have been fascinated by the connotations of the actual names of the stations. The meanings are widely varied, and cover a number of interests:

SEVENTEEN names refer to AGE: Aldgate, Aldgate East, Aldwych, New Barnet, New Beckenham, New Cross, New Cross Gate, New Croydon (subsequently absorbed in East Croydon), New Eltham, New Malden, New Southgate, New Wandsworth*, Newbury Park, Old Ford*, Old Kent Road*, Old Malden †, Old Street.

TWENTY TWO refer to ANIMALS: Blackhorse Road, Catford, Catford Bridge, Cockfosters, Cowley*, Crayford, Elephant & Castle, Falconwood, Finchley Central, East Finchley, Finchley Road, Gidea Park & Squirrels Heath, Goldhawk Road, Greyhound Lane †, Harefield*, Ravensbourne, Ravenscourt Park, South Harefield*, Stoats Nest †, Turkey Street, West Finchley, White Hart Lane.

FORTY NINE have an architectural reference, too numerous to list in a short article - Alexandra Palace* and Wembley Stadium* are examples.

EIGHT names refer to Class Distinctions, such as Barons Court, SEVENTEEN to colours (e.g. White City), EIGHTEEN to commerce and Industry (e.g. Bank, Surrey Docks), and NINETY FOUR to the compass points. The above are the first alphabetically, but at least eleven more types can be noted, from Conformation (e.g. Oval) to Vegetation (e.g. Elm Park), of which there are 39.

Some connotation or other is readily seen in over 500 of the 680 or more stations concerned - an unimportant but, for some, an interesting aspect of railways.

Note † Station subsequently renamed.

Note * Station closed.

SIGNALLING ALTERATIONS - KINGS CROSS & LIVERPOOL STREET

(Metropolitan)

From Sunday 1st February 1981, the controlled signalling at Kings Cross and Liverpool Street (Metropolitan Line) was converted to automatic operation, with all points and crossovers secured for through running, and the signals renumbered in the 'automatic' series. The traction current feeding the bay platform at Liverpool Street has also been isolated.

Both Kings Cross and Liverpool Street were controlled from Farringdon Regulating Room, which continues to control Farringdon and Moorgate. It is interesting to note that the pointwork at Liverpool Street was renewed as recently as July 1980, while signalling at Kings Cross was transferred to Farringdon in February 1979, after closure of the City Widened Line signal box at Kings Cross. On page 103 of UN 209, a diagram shows the (then) interim period of signalling, and this is how the layout is signalled now.

Diagrams of Liverpool Street, before and after, appear on the following page.

With the bay platform at Liverpool Street taken out of commission, revisions have been made to both No.1 and No.2 section Metropolitan Line timetables, in the form of Timetable Notices 2/81 and 3/81 respectively. Generally, this means that most No.2 section trains to and from Uxbridge, Watford and Amersham, run through to Aldgate, apart for two morning peak trains (0824 ex-Amersham and 0848 ex-Uxbridge) which reverse at Moorgate. The 8-car A stock train that used to stable during the midday period on Mondays to Fridays, now stables at Aldgate instead, making a total of two A stock trains stabling at this point.

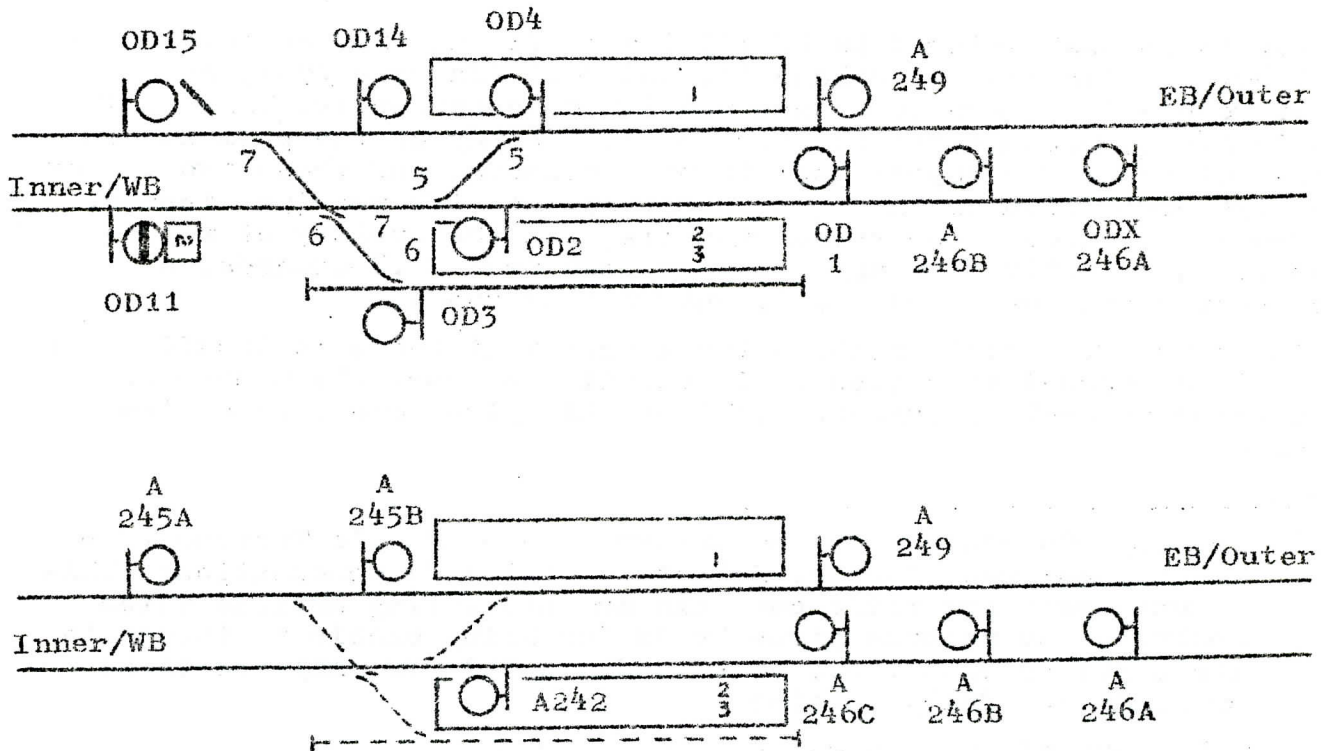
For the record, the last train of A stock to use the bay platform at Liverpool Street was on Friday 23rd January 1981, and was train 20, the 1830 to Amersham. The train was formed of cars: (North) 5042-6042-6043-5043+5131-6131-6130-5130 (south). The last train of C stock to use the bay was train 202 on Saturday evening 24th January which stabled there prematurely at 2012. This train was formed of cars 5542-6542+6522-5522+6530-5530 and departed at 0742 on Sunday morning as train 211.

BOOK AND OTHER REVIEWS AND NOTICES

LONDON BUS MAGAZINE No.35, Winter 1980/1. Published by the London Omnibus Traction Society. Price 70p.

The main feature of this issue is a 17-page article on '1940 - The Year of the Blitz', by B.A.Bunker. Many interesting developments in the bus and coach field are covered - the chequered introduction of the RT2 class; the reintroduction of Green Line services and the renumbered route network when split in Central London; the last stage of the tram to trolleybus conversion; the borrowing of over 400 provincial buses (and Bournemouth trolleybuses); and some of the worst blitz incidents affecting L.T. road transport. A whole page of 'Billy's Bulletin', and some separate Billy Brown advertisements are reproduced. Other, shorter articles cover extensions of London Country Bus and Green Line services

LIVERPOOL STREET METROPOLITAN LINE - TRACK & SIGNALS



beyond their traditional boundaries, and L.T.'s new Airbus services (A1 and A2).

Obtainable from the Society Sales Stand or from the Assistant Sales Manager, 21 Chestnut Grove, South Ealing, London, W5 4JT.

MODERN RAILWAYS - February 1981. Published by Ian Allan Ltd.
Price 55p.

In this issue is reproduced an appendix to the Monopolies and Mergers Commission report on British Rail London & South-East commuter services, detailing the problems experienced with the GN Class 313 inner suburban EMUs. In terms of miles travelled between failures, this stock is 2.6 times worse than the ER Class 306 built in 1949, and 38 times worse than the best ER EMU stock, the Class 309 (Clacton express units) of 1962. The items giving the most trouble are: traction motors; motor/alternator sets; sliding doors; couplers; air compressors; tripcock gear; and wheel-slip/slide control. The traction motor problems have caused the dynamic-braking system to be disconnected for almost the entire life of the stock.

An article by Duncan Campbell tells how he took a bicycle into the network of government tunnels beneath London by entering through a manhole cover in Bethnal Green. There are over 12 miles of tunnels, and the author travelled via Tunnels L, B and G to have a 'Christmas party' beneath Whitehall, leaving by Tunnel G to take a lift into Holborn Telephone exchange.

LONDON PASSENGER TRANSPORT by the London Passenger Transport Research Group.

The first issue was reviewed in UN 179 (page 271) and issues No.6 (December 1980, and the last of volume I), and No.7 (January 1981, and the first of volume II), have just been published concurrently. This publication is highly recommended for its in-depth study of the policies and practices of London Transport and its predecessors, and these two issues have a high proportion of Underground matter. As with previous issues, these two are produced from typed stencils, and the quality of reproduction varies greatly from page to page, but from No.8 onwards, a printed system and more flexible layout will be used.

There is so much material in these two issues that there is insufficient space in this journal to review it in detail. However, the number of pages devoted to each underground subject will give some idea of the depth of coverage:-

Number 6

- 303-314 Pricing, Co-ordination and Integration of Public Transport in the London Area, Part 2. Select Committee Recommendations. This uninteresting title conceals an interesting article which analyses the reasons given by BR for being unable to integrate its services with those of LT under a GLC PTE. All practical problems are fully examined.
- 316-319 A history of fog repeating signals on LT.
- 319-321 Book reviews. ABC of LT Rolling Stock & Locomotives, and London Underground Rolling Stock.
- 326-336 Collision at Holborn, 9 July 1980. This article covers the accident itself and the subsequent inquiries, a history of the development of Underground signalling practices to increase line capacity, history of signalling in the Holborn area, commentary, conclusion and one page of diagrams.
- 335-338 Redevelopment of Bond Street station, with one page of plans.
- 338-339 Leaf-clearing on the Metropolitan Line, with particular reference to the events of autumn 1980.

Number 7

- 342-382 Automatic Fare Collection on London Transport - Part I. This very interesting, illustrated article reviews the history of underground tickets and the mechanisation of ticket issue, and continues with an in-depth study of the theory behind AFC on LT, AFC experiments, and the practical difficulties and changes of policy.
- 386 More LT management alterations.
- 388-391 Book review. The Man who built London Transport (biography of Frank Pick).
- 391 Obituary of Christian Barman.

- 392-401 Proposed (but not adopted) station names on LT railways, with special studies of the names proposed for the Piccadilly Line extension to Cockfosters, and for stations in the 1935-40 New Works Programme.
- 402-411 North London Orbital Railways. Although mainly about BR lines, this article discusses why the GLC opted for a dearer Custom House-Woolwich tunnel, instead of a cheaper one from Silvertown to Woolwich. Map included.
- 414-415 Holborn station decoration proposals.
- 417-424 Automatic Train Operation and the Jubilee Line. A full review of the history and reasoning behind the ATO scheme, with as many changes of policy as in the AFC schemes reviewed earlier.
- 425-426 A critical review of the internal exhibition 'Publicity Office Work' held at 55 Broadway on 16-19 December 1980.

London Passenger Transport is available by subscription only. The rates for Volume II are £6.50 for home subscribers and £7.50 for overseas subscribers, payable to the London Passenger Transport Research Group, 24 Cranbourn Street, London, WC2H 7AA. Back numbers are not specifically advertised, but it appears from the text that they might be available on request.

PUBLICITY OFFICE WORK

At the exhibition for L.T. Staff, held at 55 Broadway on 16-19 December 1980, the following items of interest were noted:

- (a) A pair of posters, which have not been seen by your reviewer on public display, but apparently directed at BR passengers on lines feeding into St.Pancras or Victoria, each saying 'Our trains do not stop at' - 'St.Pancras' or 'Victoria' (meaning that they provide a service beyond these termini). The pictures for each station are quite different - that for St.Pancras unfortunately shows surface stock trains reduced to tube stock size, and with trains on all the LT lines serving this station running through a series of Gothic arches.
- (b) References to the LT Photographic Library, which indicate that LT intend to continue with the present arrangements to select and buy photographs.
- (c) Experimental red and grey liveries on LT buses and trains, and a BR EMU in case a London PTE id formed.!

LETTERS TO THE EDITOR

Sir,

The Metropolitan Railway in the 19th Century

The Metropolitan & St.John's Wood Railway was constructed as a single line and opened 13 April 1868. The railway was worked by train staff and ticket as follows:

Baker Street to St.John's Wood Road, Round staff with a red band,
 St.John's Wood Road to Marlborough Road, Square staff with a blue band,
 Marlborough Road to Swiss Cottage, Triangular staff with a yellow band.

The tickets were of the same colours.

Later, probably from 1874, the line was worked by Pilotmen. The man for the section Baker Street to St.John's Wood Road wore a Red shoulder belt. The man for the section thence to Swiss Cottage wore a blue shoulder belt.

The line was doubled in 1882, the original line Baker Street to St. John's Wood Road became the down line, and the line thence to Swiss Cottage became the up line. Double line throughout 10 July 1882.

Engines carried headlights denoting the service:-

Inner Circle trains: One white light on buffer beam.

Hammersmith trains: One white and one blue light on buffer beam.

Richmond trains: Two white lights on buffer beam.

GW Main Line trains; One white and one blue light vertically, also a white disc with a blue cross.

Middle Circle trains: Two white lights vertically and a white disc.

District local trains to West Brompton: Two white lights on buffer beam and a blue disc.

Outer Circle L & NW trains: Two white lights diagonally and a loop on one side of funnel and a white diamond disc on other side.

GN and LC & D Ludgate Hill and Victoria trains: Two white lights on buffer beam and a red disc with a black cross.

GN Moorgate Street trains: One white and one blue light on buffer beam and a blue disc with a white cross.

Midland and LC & D Ludgate Hill and Victoria trains: two white lights vertically and one white diamond disc.

Midland passenger trains to Moorgate Street, also Herne Hill goods trains: Two blue lights on buffer beam and white disc with black cross.

Midland Battersea goods trains: Two blue lights on buffer beam and one white disc.

Midland trains to Walworth coal sidings: Three blue lights triangularly and two white discs.

LC & D trains Moorgate Street and Victoria: One white light and one white disc.

LC & D Moorgate Street and Crystal Palace: Three white lights triangularly, two white diamond discs vertically.

All passenger trains carried destination boards on the engine. Middle Circle trains carried 'Addison Road' boards, being replaced by 'Aldgate' or 'Mansion House' boards at Addison Road.

Yours sincerely,
H.V. Borley.

Ruislip,
Middlesex.

Sir,

I must take issue with Clive R. Johnson's account of the origin of the London Underground diagram (UN 228). The credit for the basic layout of the map lies not with Paul E. Garbutt, but with Henry C. Beck, whose first design appeared more than thirty years before Mr. Garbutt's was adopted.

Folding maps with travel information showing the complete Underground network first appeared in 1906. As the system expanded in the 1920's, more map space was taken up by suburban extensions, resulting in compressed representation of the central area, which made it difficult to read. In 1931 Henry C. Beck, a young Underground group draughtsman, converted the map into a diagram. The central area was enlarged in relation to the suburbs, and the route lines were kept to verticals, horizontals and 45° diagonals. A modified version of his original design was adopted by London Transport in 1933 and produced both as a pocket map and a poster. Beck worked on new diagrams in his spare time, and these were used by LT until his retirement in 1959. Beck's basic principles have been adhered to in all subsequent diagrams, first by Harold R. Hutchinson in the early 1960's, then by Paul E. Garbutt in the mid-1960's until he retired in 1979. A new diagram is currently being

prepared by the LT Publicity Office, but the design is still not substantially different from Beck's original concept.

The rough sketch from which Beck developed his diagram fifty years ago is now in the Victoria and Albert Museum, and was displayed at the Arts Council's 'Thirties' exhibition at the Hayward Gallery in 1979. A colour photograph of it is on display in the London Transport Museum, where we have a special section on the evolution of the Underground diagram.

Yours sincerely,
Oliver Green.

Curator,
LT Museum.

Clive R. Johnson replies:

I was not unaware that Paul E. Garbutt's was the first design, nor that it was he who created the basic layout of the map, but it is his modified version which is currently used by LT. My point in writing 'A Christmas Doodle' was not an attempt at a comprehensive history of the map, but merely to provide a simple, humble lay Geography student's commentary on why the current map is so effective, and to suggest one or two points which readers may wish to think about and possibly comment on. I am therefore grateful to Mr. Green for his interesting reply, and wait with eager anticipation to see the new diagram being prepared by L.T.

FROM THE PAPERS

Aylesbury & Wendover Times

23.1.81 - BR have received complaints from some residents of Walton Street and Walton Terrace, Aylesbury, who are complaining that diesel engines are being left running through the night in the winter. As well as being a health hazard, it claims, the running of the engines continuously also wastes fuel. BR admit that the diesel units are over 20 years old, and might possibly give off excessive fumes.

Daily Telegraph

2.12.80 - Brodero, the Dutch development group, has won planning approval for some 500,000 sq.ft. of offices in a six-acre complex at Hammersmith which will include the existing Underground station, a bus and coach depot, and other amenities. The vast project, which will be called Centre West, will cost some £40 million, and will include four integrated blocks of offices with accommodation for associated leisure and commercial activities as well as the passenger interchange facilities linking the proposed new bus station to three underground lines. The Dutch group is working with the co-operation of London Borough of Hammersmith, and London Transport, with Sam Levy of Jones Lang Wootton advising Brodero.

5.12.80 - Last night Henry Moore received the Grand Cross (Second Class) of the Order of Merit of the Federal Republic of Germany from Chancellor Schmidt. The award is seen as a gesture of reconciliation towards an artist who, 40 years ago, painted Londoners huddling in the Underground to escape from German bombs.

17.12.80 - Letter to the Editor: Sir - I am happy to stand in the tube while all the men are sitting. They are in their right place there. I can look down on them - Julia Budworth, Earl Stonham, Suffolk. (!!)

30.12.80 - For the England-Scotland football match at Wembley next May, British Rail has announced stringent restrictions. For three days before the match and two days afterwards, there will be a strong police presence on all trains between Scotland and England; passengers will have to have

seat reservations, and no alcohol will be sold. This ban on alcohol will also affect buffets and off-licence stores on stations between Scotland and England - passengers carrying alcohol will be turned off trains. Both BR and LT expect that their staff will refuse to work in the Wembley region on the day of the match. No trains will stop anywhere near Wembley Stadium, and trains on some lines will be cancelled, including those on the local London-Watford line. LT, responsible for the Jubilee and Metropolitan lines and buses to the Wembley area, is expected to follow suit.

10.1.81 - Sir Freddie Laker is calling his new aircraft, the first British-owned Airbus, the 'Metro', as he sees its new place as the ideal inter-city airliner - a sort of overhead underground. He says 'In the days when it was a crime to offer anyone a cheap ticket, we were known as the Lakerloo Line!'

14.1.81 - Commenting on the scheme to sell the freehold interest in D.H.Evans, the Telegraph's City Comment states 'The 1970's was a wonderful decade for Oxford Street retailers. The opening of the Victoria Line and the Jubilee Line, together with the boom in tourism that culminated with the Jubilee festivities created a golden era. Now there are fewer tourists and new competition from suburban shopping areas.'

Financial Times

28.1.81 - Pages 11 to 15 are devoted to a review of developments in Mass Transit Systems throughout the world. After a general review of the world situation, there are separate articles on London, Glasgow and Teeside, France, West Germany, USSR, Canada, Egypt, South America, USA, Hong Kong, India, Japan and Italy. Most of the articles stay on the theme of Mass Transit (i.e. Rapid Transit) but some wander off on other themes. The London article is nearly all about top management and the buses, the West German one is entirely on unorthodox transport developments, part of the French one is on the new Paris-Lyon line. However, some interesting facts are given on Mass Transit proper - how traffic on the first Hong Kong line has been less than anticipated, and how doubts are being expressed about the viability of the Hong Kong island line; how the Calcutta line is progressing but the Cairo line is delayed; how Canada and the USA are looking to light rail transit to save costs.

Cover price: 25p, but probably more if bought as a back number.

POINTS OF INTEREST

John Reed writes:

'Some interesting observations remain to be made on L.T.'s two kilometres of 'steam' track beyond Amersham, but at this time of the year, poor light when commuting and the speed of the train make observation difficult; and as there are few public rights of way in the area, it would not be easy to see from the lineside. However, so far I have noted the following:

Immediately beyond the north sidings at Amersham the line is crossed by a rather busy footpath where a sleeper-built footway and lineside railings are provided. In recent months a large wooden notice has been erected on each side of an unpainted (but probably creosoted) post. The flags are painted bus-red, and are inscribed 'Warning - beware of trains' in non-standard lettering (no doubt because a footpath sign on LT is a non-standard feature). Further north, there are at least three pairs of full-sized farm-type gates in the lineside fencing, although I do not believe any sleeper crossing exists. They appear little used, but nevertheless at least three of them have in late months received a similar but smaller red sign to that at the foot-crossing; the small lettering so far is unreadable, particularly as only one faces inwards.

At a guess I would say that they ask users to close the gates. Although not electrified, this section of line appears to be LT territory judging by the Km-posts out as far as post 87.0, so it seems that these crossings should be included in the LT list.

Incidentally, until about 1964, when they began disappearing in earnest, most of these crossings had a pair of cast-iron signs. The upper one was lettered 'Met.Rly. Beware of the trains' and the lower was an M&GC sign of the '40 shilling' type concerning trespass.'

Nigel Hyde writes:

'With reference to UN 229, page 22, until the end of steam operation, the Chesham branch had regular workings with engines attached at both ends of trains. This was occasioned by the need to provide a relief shuttle engine on weekdays (there was an extended interval in the Sunday afternoon service to allow for engine requirements) and with the stabling of through trains in the yard at Chesham (one LT set each weekday and a BR set from Saturday afternoon until early on Monday morning). Each weekday the branch train leaving Chesham shortly after 1700 had a parcels van and second shuttle engine attached at the north end. At Chalfont the van was attached to the rear of a Marylebone train. (The parcels van had reached Chesham on an early morning trip from Marylebone which, except on Mondays, brought the BR set to Chesham for the first passenger trip of the day out of Chesham - a through working to Marylebone.) When LT electric locomotive hauled trains ran through to Chesham, one set continued to be stabled at Chesham while the other worked from and to Neasden depot with a second electric locomotive attached at the rear. It is conceivable that the 'attached' engine/loco did in fact 'assist' on occasion.

Definite banking provision was made in connection with the working of ER/LMR freight trains via the City Widened Lines to the SR. Latterly 350hp diesel electric shunters were provided for banking trains up the Snow Hill incline from Farringdon, and was located in a spur just west of Farringdon station.

An observation of the transfer trip from Neasden depot to Drayton Park via the CWL and Kings Cross main line of 1938 tube stock (1970-75) showed the need for the rear battery locomotive to act as banker to get the train effectively on the move up the incline from the CWL at Kings Cross.

I have mentioned previously the possibility of an Uxbridge line freight train working via the flyunder from Harrow to West Harrow, with a banker either attached or available. CONFIRMATION PLEASE ?

QUESTION & ANSWER

QA37) Mention has been made in the journal of the leaf clearing problems on the Metropolitan Line last autumn. Why is it that only BR trains suffer with acceleration problems, and not LT trains ?

A) Unlike LT trains, which have all axles on motor cars motored (four out of four), BR DMUs only have two out of four axles motored. The two motored axles of the DMU train therefore puts down greater tractive effort when moving off, and, because of the gear changes, the acceleration is not as smooth as on LT trains. With all this not in its favour, this makes the DMU trains vulnerable to wheel slipping.

SMALL ADVERTISEMENT

A Chronology of Railway Stations in Greater London, including dates of closure, re-opening, renaming, etc. for LT and other lines. Also complete alphabetical list including subsidiary names. 66pp £1.50 + 20p post and packing. A. Leonard, 73 Bardsley Close, Croydon, Surrey, CR0 5PT.
SA19/231/81.

SOCIETY SECTION

National Girobank

The Society has opened an account with the National Girobank to receive payments for its Postal Sales ONLY. The Account number is 58 009 4200.

Payments can be made in three ways:

- (1) For holders of National Girobank accounts: complete a transfer form and send it to National Giro.
- (2) For those who do not hold National Girobank accounts, either:
 - (a) Obtain a transfer form at the Post Office for 25p. Fill this in and hand it in at the Post Office with the cash for the transaction.
 - or
 - (b) Obtain a blank Bank Giro Credit form from any bank (not the type used for paying in at that bank branch), and complete it as follows:

Bank - National Girobank
Code - 72 00 00
Branch - Bootle
Account - L.U.R.S. Sales
Account Number - 58 009 4200
Paid in by - you own name

(These payments to a bank may be made by cash or cheque).

Facilities exist for holders of Girobank Accounts in certain overseas countries to make a payment in Sterling to the Society's Girobank Account, and such members should enquire locally.

IN ALL CASES, the senders of such remittances must write the following details on the back of the form:

Full name, address and membership number.

Full details of what the payment is for, including the cost(s) of each item.

As these forms will be sent on to the Society's Assistant Sales Manager, there is no need to write a separate letter for straightforward transactions.

This account is being opened experimentally, and if no serious problems are encountered, a separate account will be opened for membership renewals in time for the 1982 renewals.

Posting of Underground News No. 230

Underground News No. 230 was posted on 25.1.81 for members who had renewed their subscription by 18.1.81. For those who renewed after this date, this was dispatched as soon as could be dealt with by the Registrar and Dispatch Officer. For those who renewed in time, but received the journal late, we apologise, but this was due to a postal strike, and was beyond our control.

Advertising in Underground News

- (1) Members and others, wishing to advertise in Underground News, are advised that the rates are £10 for a full page advertisement, £5 for half page and £2.50 for a quarter page, payable in advance. Advertisers should bear their own block making costs. Small advertisements are at the revised rate of 2p per word.
- (2) The Society reserves its discretion to reject advertisements, and the journal Editor cannot guarantee that any advertisement will appear immediately; this will depend on the space available in the journal. Copy and remittances to be sent to the Editor (address on back page of every issue). Cheques or postal orders to be made payable to 'The London Underground Railway Society'. Please, DO NOT send cash.
- (3) This notice, operative forthwith, supersedes previous notices on this subject.
- (4) Requests for information, and requests to be put in touch with other members doing research on a particular subject, will continue to be inserted free of charge, subject to the conditions in paragraph (2) above.

Society Ties

The Society has recently taken delivery of a batch of Society ties, which are now available to members. They are 100% polyester in 'satin' weave and have a maximum width of 4-4½ inches. The colour is basically black, but with a design consisting of thin diagonal stripes woven in bright red. The stripes are set in groups of four to represent the rails of the 4-rail track of the London Underground system.

Ties are available for £3.50 (post free) from the Assistant Sales Manager 21 Chestnut Grove, South Ealing, London, W5 4JT. As noted on page 82 of this issue, payment can be made by Giro Transfer to Account No.: 58 009 4200.

Back Numbers of Underground and Underground News

The Society has available limited supplies of 'Underground News' back numbers together with a few of the original series of 'Underground' (1962-74) which was the predecessor to 'Underground News'. As a result of some members making available their early copies, some issues are now available that have been out of print for some time. The issues available are as follows:-

Underground (1965) Issue Nos. 37, 38, 47.
Underground (1969) Issue Nos. 93, 94, 96.
Underground (1972) Issue Nos. 123, 124, 126, 128, 129, 130, 131, 132.
Underground (1973) Issue Nos. 133, 134, 135, 136, 137, 138, 139, 140,
141, 142, 143, 144.
Underground (1974) Issue Nos. 150, 153, 153A, 154, 155, 156.
Underground News (1975) Issue Nos. 157, 158, 159, 160, 161, 162, 163,
164, 165, 166, 167, 168.
Underground News (1976) Issue Nos. 169, 170, 171, 172, 173, 174, 175,
176, 177, 178.
Underground News (1977) Issue Nos. 179, 180, 181, 182, 183, 184, 185,
186, 187.

Underground News (1978) Issue Nos. 188, 189, 190, 191, 192, 193, 194,
195, 196, 197, 198, 199, 200, 201,
202, 203, 204.

Underground News (1979) Issue Nos. 205, 206, 207, 208, 209, 210, 211,
212, 213, 214, 215, 216.

Underground News (1980) Issue Nos. 217, 218, 219, 220, 221, 222, 223,
224, 225, 226, 227, 228.

Jubilee Line Supplement to UN 210

D Stock Supplement to UN 218

L.T. Museum Supplement to UN 221

Index Sheets are available for 1963, 1964, 1967, 1969, 1973, 1975, 1976,
1977, 1978, 1979, 1980.

It should be noted that only one copy of each of the issues underlined
above is available, and some others are in very short supply.

Prices

The price of back numbers per copy is:-

Underground (1965-74) and Underground News 1975-78 15p each

Underground News 1979-80 25p each

Jubilee Line Supplement to UN 210 35p each

D Stock Supplement to UN 218 40p each

L.T. Museum Supplement to UN 221 40p each

In addition, there are some back numbers of the current series of
Underground, as follows:-

Underground No.3 30p each

Underground No.4 70p each

Underground No.5 70p each

Underground No.6 55p each

Underground No.7 65p each

Indexes (1963-1973) 5p each year

Indexes (1975-1980) 10p each year

All orders will be supplied post-free to U.K. members, overseas members
are asked to add 20% to assist with postal costs.

Payment

As there will be issues that go out of print quickly, would U.K. members
please pay in normal value stamps. It is inevitable that some members
will not get all the issues they order and change will be sent by
returning stamps. Alternatively, members wanting less than a whole set
could ask for sufficient issues to be covered by a cheque or postal
order for a particular amount.

Ordering

Orders should be sent to the Sales Manager, 26 Fishery Road, Boxmoor,
Hemel Hempstead, Herts, HP1 1ND. Orders will be dealt with strictly on
a first-come, first-served basis, but some delays may occur due to
holidays and other circumstances.

Meeting Room

When we were obliged to find a different venue from Hammersmith Town
Hall, we had to take whatever rooms were free at Caxton Hall on our
regular meetings night, and we also had to make advance reservations to

be sure of having any room. At that time we did not know how popular the new venue would be compared with Hammersmith. There is now no doubt that Caxton Hall is more popular than Hammersmith, and as the Tudor Room is the largest of three rooms for which the same charge applies (the fourth has no ceiling black-out) the January 1981 meeting was moved there experimentally.

As the Tudor Room meets our needs admirably, all of our meetings will be held there from August 1981 onwards. During the intervening period, we have been able to transfer two meetings to the Tudor Room (it was already booked on the other days) so that the pattern will be:-

13th March - Tudor Room
10th April - Lancaster Room
8th May - Tudor Room
12th June - Kent Room
10th July - Kent Room

The Kent Room (on the first floor above the Lancaster) is slightly larger than the Lancaster, and the Tudor Room (on the first floor, turn right at top of stairs) is slightly larger than the Kent. For all rooms, please do NOT arrive before 1845, as we have only a three-hour booking.

ANNUAL GENERAL MEETING - 1981

Notice is hereby given that the Annual General Meeting of the Society for the year 1981 will be held in the Small Lecture Theatre, Science Museum, Exhibition Road, South Kensington, London, SW7, at 1430 on Saturday 28th March 1981. For directions on how to reach the Small Lecture Theatre, please see page 68 of this issue.

The Agenda and the Report of the Committee for 1980 are given below. The Accounts will be available at the A.G.M., and also by post to those sending an addressed envelope (9" x 4") to the Treasurer at 6 Launceston Gardens, Perivale Greenford, Middlesex, UB6 7ET; if they are not ready when this journal is published, they will be sent as soon as possible afterwards.

Please note that Members must produce a 1981 Membership Card to gain admittance to the A.G.M.

Nominations have been received for the following members to be elected to fill the three vacancies on the Committee: P.R.Connor, R.J.Greenaway, J.P.Herting, D.Lomas. All these members have agreed to serve on the Committee if elected.

Notice has been received of intention to propose an alteration to the Society's rules, by D.F.Croome, as follows:-

Rule 17. Matters Not Covered by the Rules.

The existing rule reads:

The Committee shall be empowered to decide all matters not covered specifically by these rules, except that in the event of the suspension or expulsion of a Member from the Society for conduct to the discredit of the Society, the action of the Committee shall be confirmed or negatived at the next General Meeting, and the member concerned shall have the right to attend that meeting and present his case.

The complete revised rule reads:-

The Committee shall be empowered to decide all matters not covered specifically by these rules, except that (a) in the event of the suspension or expulsion of a Member from the Society, or (b) in the event of a Committee Member being expelled from the Committee, the

Proposed revision to Rule 17 (Continued)

action of the Committee shall be confirmed or negatived at the next General Meeting, and the Member concerned shall have the right to attend that meeting and present his case.

This alteration is proposed in response to a motion carried at the previous A.G.M. on 29.3.80, which asked the Committee to investigate possible changes in rules to cover point (b).

AGENDA

1. To receive any apologies for absence.
2. To have read the Notice of the Meeting.
3. To have read the Minutes of the 1980 A.G.M., if so desired by the majority of members present.
4. To confirm the election of Mr.D.F.Edwards as President of the Society.
5. To confirm the election of Dr.Tony M.Ridley as Vice-President of the Society.
6. To receive the report of the Committee for 1980.
7. To receive the Accounts for 1980, and the report of the Hon.Auditor thereon.
8. To elect an Auditor.
9. To consider the proposed amendment to the Society's rules, submitted by D.F.Croome.
- 10.To confirm the Committee's action under Rule 17 in suspending a member for failing to return Society property.
- 11.To elect three members of the Committee.
- 12.To conduct any other competent business.

By order of the Committee.

D.F.Croome, Secretary.

REPORT OF THE COMMITTEE FOR THE YEAR 1980

The Committee is pleased to present to members its report for 1980. There has been increased activity in many of its fields of interest, involving much work behind the scenes by Committee members, Officers and other members.

Information Officer.

Steve Tish was appointed Information Officer in July, and has since dealt with a steady stream of queries.

Library

Thirteen library evenings were held at Nick Mitchell's home. These were well attended, and the library stock has continued to expand.

Meetings

Eight meetings were held at Hammersmith Town Hall and four at Caxton Hall. We are grateful to the authorities at Caxton Hall for accommodating us at short notice, after we were in effect thrown out of Hammersmith Town Hall by a penal increase in charges. Attendances have increased since the move to the new venue. During the year, four talks were given

by present or retired LT or BR officers, three by Committee members, two by non-members on their specialist interests, and Mr.P.R.Davis gave the Presidential Address. Two members presented film shows. We are obliged to all our speakers for preparing, delivering and illustrating their talks.

Membership

At the end of 1980, total membership was 609, a 13% increase over the 1979 figure. Paul Creswell, in his dual role of Registrar and Dispatch Officer, continued his efficient handling of applications, renewals and dispatch of periodicals.

Overseas Members

Mr.S.Hamer continued to act as our representative in Australia and New Zealand, and Mr.R.D.Spotswood as our representative in the U.S.A. and Canada. We are grateful to these representatives for their work in forwarding membership fees, and in numerous other ways. We were also pleased to retain or enrol members in Denmark, France, Germany, Netherlands, South Africa and Sweden.

Periodicals

During the year, twelve issues of Underground News were published, plus two illustrated supplements on the D stock in February and the L.T. Museum in May. Including the supplements, the number of pages published during the year increased from 340 to 394, an increase of nearly 16%, and the separate index occupied 19 pages. Thirty major articles were published, and developments on London's Underground were reported, as were those on Glasgow, Merseyrail, Tyne & Wear, and on the Paris, United States and other overseas systems. Thanks are due to Brian Hardy for editing and typing Underground News, for writing many of its features and for preparing the index.

Underground No.6 appeared in July, under the temporary editorship of Nick Mitchell. His article on Underground slang attracted attention on two radio programmes and in three newspapers.

The present printer of Underground has proved to be reliable and competitive. It is hoped to publish at least three issues during 1981, but costs in relation to resources will be kept under close review.

The Committee expresses its thanks to all concerned with editing, producing and dispatching the Society's periodicals.

Preservation

A meeting was held at Caxton Hall on 21st October to assess the support for working parties to preserve the Society's car and bodies at Ruislip. Supporters' names were recorded, but further progress must await the satisfactory conclusion of negotiations with London Transport on insurance. These are now well under way.

Register of Members' Interests

In July, a form was sent to members on which they could register their specialist underground interests, with a view to their being put in touch with other members with similar interests; there was good response and at the end of the year a panel of officers were engaged in analysing and collating the replies.

Roving

Following the publicity gained by the successful Roving attempt by the 'Pennies from Heaven' team in October 1979, six attempts were made during the year to visit all LT-served stations in the shortest possible time. The 20th Enfield Scouts team gained the record on 25th March, only to lose it to Police Sgt. John Trafford and his son on 20th May. Nearly all

these attempts raise money for charity, by sponsorship (they nearly always raise some money even if they don't break the record), and they involve the Society's Roving team in the work of checking itineraries and checking the progress of the attempters on the day. The Society gained much publicity on television during this year's attempts. Thanks are due to all who assisted with Roving attempts during the year.

Sales

The Sales team, headed by Bob and Val Greenaway, has manned the Society's sales stand at twelve indoor meetings and six outside events, and postal sales have been dealt with by the Assistant Sales Manager. Profits from sales are a vital source of income for the Society, and thanks are due to all who helped with sales activities.

Social Evening

A social evening was held at the Blackfriars public house on 30th May, but it was poorly supported.

Study Tours

Tours of the trackbed of the Finsbury Park-Alexandra Palace line, and of the rather more active Acton Town-Heathrow Central line were conducted by Brian Hardy and Alan Jackson respectively, and both were well attended. Each tour was blessed with good weather, and participants learned much of the history and geography of these lines.

Visits

Nine official visits were made to London Transport properties, and others were made to the Post Office Railway, Kings Cross (ER) signal box, Bicester Military Railway and the Westinghouse Brake & Signal Company. They were all well attended, and are thanks are due to all our hosts who made them possible.

Personal

The Society recorded, with deep regret, the death of a Past President, Charles F. Klapper, in January.

Presidency

Thanks are due to Mr. P. R. Davis for the active support he has given during his Presidential year.

Conclusion

The Committee thanks all members for their support during the year, and the transport authorities, the media and numerous individuals for helping in all kinds of ways. The ever-present problem of too much work on too few shoulders has become more acute during the year, with the increase in activity, and the Committee is still exploring ways of sharing the burdens.

By order of the Committee.

D. F. Croome, Secretary.

ROLLING STOCK ALTERATIONS

Add for December 1980

D Stock

Ruislip to Ealing Common

8039-17039-7039 23rd

January 1981

CO/CP Stock

From Pilot Motor cars (Ruislip) to
Condemned cars (Ruislip)

53001-54193

From Ealing Common to Ruislip (Condemned cars)

53246-013140-54228 6th
53042-013089-54008 7th
53241-013160-54247 8th
53194-013099-54213 9th
53234-014069-54266 13th
53021-013182-54241 19th
53212-013179-54245 23rd

Ruislip to Birds Long Marston for scrap

53042 53241 53246 54008 54223 54247 013089 013140 013160 14th
53021 53194 53234 54241 54251 54266 013099 013182 014069 22nd

Ruislip to Booths Rotherham for scrap

53009 53051 53233 54009 54011 013090 013113 014061 29th

D Stock

From Metro-Cammell, Birmingham, delivered to Ruislip

7048-17048-8048+8049-17049-7049 9th
7050-17050-8050+8051-17051-7051 23rd

From Ruislip to Ealing Common

8041-17041-7041 7th
7040-17040-8040 8th
7042-17042-8042 9th
8045-17045-7045 12th
7044-17044-8044 13th
8047-17047-7047 19th
7046-17046-8046 23rd

Entered Service, District Line

7036-17036-8036+8037-17037-7037 16th
7038-17038-8038+8035-17035-7035 30th
8041-17041-7041 30th

Miscellaneous Movements

L33 Ruislip to Acton (collision) 8th

L130+PC857-PC858+L131 Acton to Ealing Common (new PC conversions) 15th

L130+F352+L131 Ealing Common to Acton (coupler mods) 29th

1438-2438-9439-1439+1642-2642-9643-1643 Ruislip to Acton, Overhaul and
Holborn collision cars 31st

Reformations

From	To
1618-2618-9619-1619	1618-2532-9619-1619

Units to Acton for Overhaul

Metropolitan	5056-6056-6057-5057	8th
Central	1548-2548-9549-1549	12th
Northern	1220-2220-9221-1221	14th
Bakerloo	10231-012314-11231+10284-012374-12144-11284	16th

Units to Acton for Overhaul (Continued)

Northern	3416-4516-3516	20th
Metropolitan	5526-6526	22nd
Victoria	3073-4073-4173-3173	25th
Central	1634-2634-9635-1635	26th
Metropolitan	5058-6058-6059-5059	28th
Central	1606-2606-9607-1607	28th
Northern	1242-2242-1243	29th

Units from Acton after Overhaul

Metropolitan	5054-6054-6055-5055	8th
Central	1552-2552-9553-1553	12th
Northern	1212-2212-9213-1213	14th
Northern	3415-4515-3515	20th
Metropolitan	5503-6503	22nd
Victoria	3057-4057-4157-3157	25th
Central	1584-2584-9585-1585	26th
Metropolitan	5072-6072-6073-5073	28th
Central	1618-2532-9619-1619	28th
Northern	1146-2146-1147	29th

NEWSFLASHES

- NF 43/81 More than half a million Underground passengers are being asked to help plan the Underground network in the 1980's. Over the next three months, they will be invited to take part in the biggest Underground travel survey for a decade. The survey will be the most important source of data for Underground planning purposes for several years and will be the first to take into account the Jubilee Line and the Heathrow extension. Survey teams will visit almost every station on the Underground network, including some managed by British Rail. The survey was due to start in the central area on 2nd February. As well as counting the numbers of passengers, questionnaires will be handed to at least one in four, and a smaller number will be invited to answer more detailed questions.
- NF 44/81 Station modernisation progresses: Whitechapel has now received fluorescent lighting, and work has now started on equipping Chiswick Park. During the second week of February 1981, the new fluorescent lighting at Acton Town was switched on progressively. In addition, large floodlights have been fitted in the booking hall of Acton Town station. These floodlights are pointed up towards the ceiling.
- NF 45/81 It appears that the internal ventilation grilles which cover the fans inside the D stock cars are of two different types. The original type as shown in the Underground News Supplement were fitted flush to the ceiling both sides and directed the air straight downwards. The revised style are set at an angle so as to direct air on top of the passengers' heads (a correspondent reports a most irritating sensation, as one's hair is gently ruffled!). In addition, car 7027 has been seen with large square-shaped fans fitted in the roof at each end of the car. D stock units are being fitted with revised transfers above the emergency communicating doors. The layout is:

EXIT TO NEXT CAR - EMERGENCY USE ONLY
DO NOT USE WHILE THE TRAIN IS IN MOTION

All lettering is white Johnston, with green background (top line) and red background (bottom line).

NF 46/81 Neasden station car park closed to the public on and from Monday 12th January 1981.

NF 47/81 Further to NF 42/81 regarding Bakerloo Line 1953 stock destination plates, the 'Bakerloo Line' and LT roundel plates are in fact destination plate sized pieces of $\frac{1}{4}$ " plywood painted black. The 'Bakerloo Line' is a sticker on one side. On the other side is painted in small numbers in the bottom right hand corner, the appropriate car number on which it is fitted. The LT roundel is painted on. On the other side of this plate is a 'Special' sticker. The remaining destination plates are all existing metal plates with new stickers. These are paired up as follows:

ELEPHANT/QUEENS PARK

WATFORD LMR/HARROW WEALDSTONE

WATERLOO/STONEBRIDGE PK

PADDINGTON/PICCADILLY

The first car noted with the new plates was 10267 on 9.1.81. (Any previous observations, please), and by February, most north and south DMs had been dealt with. Previously many cars had, for instance, no Stonebridge plates, while others had two or three of these, so some reorganisation was necessary. For the first time, a 'Piccadilly' plate has been introduced, which should prove useful with the amount of reversing that goes on there. This leaves Lambeth North as the only Bakerloo reversing point with no destination plate.

NF 48/81 1960 stock development unit 3902-4929-3903 was observed by a member reversing south to north (inner to outer) at Woodford on 25.1.81. Externally, both DMs had a handwritten 'Not in Service' notice pasted on the driver's centre door, and a blue light had been added level with the (empty) destination indicator. Internally, a work bench and recording apparatus replaced the front longitudinal seats. This train is being used as a test for the Fully Automatic Controlled Train (FACT), and when working in the FACT mode of operation, the blue light mentioned above, flashes. It is interesting to note that this train (the 'no-man' train) was cancelled recently, due to 'no man' (the guard) being available!

NF 49/81 A member reports the following in the information display area at Victoria (Victoria Line) booking hall during January 1981. On 12.1.81, the poster on display to the right of the Tourist Information Map headed 'How to get to other main-line termini by Underground' (standard format) is that which should be posted in Earls Court Exhibition subway, and bears the reference 1.78/1189H/150, dated 15.2.78. This poster has been the cause of tourists enquiring at the LT Information Centre how to find 'the Piccadilly Line, Platform 5 for Kings Cross' and other strange combinations.

Observed on 25.1.81, posted two positions away from the aforementioned tourist map on its left, is posted 'Charing Cross Trains'. It reads 'Except during Monday to Friday peak hours, for trains via the Charing Cross branch, and for through trains to Edgware and High Barnet, take the first train and change at Kennington.' This poster, which presumably should be displayed on a northbound Northern Line platform south of Kennington, bears no reference number or date.

NF 50/81 The following information has been received on the restoration of the Metropolitan compartment stock coaches on the Keighley & Worth Valley Railway, from the Vintage Carriages Trust, to whom we are indebted.

The nine-compartment 3rd class coach, No.465, is still undergoing major internal and external restoration work at Oxenhope. Although most of the bodywork was completed over a year ago, the long dry spell last spring, and the direct sunlight, cracked several panels along one side of the coach. Therefore, extensive work has been carried out over the past few months to repair this damage and to seal the whole body again against water ingress. About six or so windows and several new drop-lights have also been fitted. As far as internal restoration goes, the target set three years ago was to restore all the compartments to a condition as close as possible to that of 1919 when the coach was built, giving true restoration and not just a facelift. Four compartments have been completed to date and work on the fifth is well advanced. The sixth has been started, the seventh and eighth are awaiting structural wood-work repairs to be carried out by a joiner.

On first class car No.509, progress continues slowly, but steadily. The major problem remains replacing one of the vehicle's corner posts. This seems to be beset by delays, and this will almost certainly will mean a laminated construction, as it has been difficult to find a piece of sound hardwood 7" x 6" x 8'6". The present activity is stripping the accessible side down to bare wood, to allow varnishing in due course. Internally, five of the seven compartments are virtually complete. The other two cannot be completed until the above mentioned corner post has been dealt with.

NF 51/81 Overhead line equipment was made 'live' from 12.1.81 as the first stage of the Midland Suburban Electrification, between north of Bedford and south of Luton, and driver training is due to commence soon with EMUs borrowed from other lines. The first of the class 317 EMUs for the Moorgate line are now expected in the late summer this year.

Much of the concrete slab track has been laid as far as west of Farringdon, while east of that point up to and including Barbican station most of the ballast has been put down. A high wall at the west end of Farringdon station on the 'up' side has been constructed, presumably to keep the overhead line equipment isolated from the LT platforms. On the LT side of this wall, new cable brackets are being fixed, to take cables diverted because of this work. At Barbican, the supports for the station canopy on the 'down' side have been erected, and the station platforms at Kings Cross, Farringdon and Barbican are progressing well.

NF 52/81 The one that got away - D stock units 7036 and 7037, which entered service on 16.1.81, did so complete with Metro-Cammell stickers on the driving car ends. However, instructions were issued for these to be removed when the train stabled on Friday 30.1.81, and on this day it worked train 12, mostly on the Wimbledon branch - spoilsports! See also NF56/81.

NF 53/81 A person on the track at Paddington Bakerloo Line on Friday evening 23.1.81 caused two Bakerloo Line trains to be diverted at Baker Street to West Hampstead. These were trains 156 and 131, the 1954 and 1959 from Baker Street to Queens Park.

NF 54/81 On Friday 30.1.81, a 1973 stock train over-ran No.25 siding at Arnos Grove, causing slight damage to the coupler of DM 872.

- NF 55/81 Passengers on an eastbound Piccadilly Line train from Rayners Lane had an unexpected trip on Monday 19.1.81 - to Harrow-on-the-Hill! Train 265, the 1800 from Ruislip took the wrong signal at Rayners Lane and proceeded to Harrow. Passengers were detrained there, while the 1973 stock train was reversed empty from platform No.5 back to Rayners Lane - to try its eastbound journey again!
- NF 56/81 The last unit of D stock to be delivered with Metro-Cammell stickers was 7047 on 17.12.80. For the record, 7029-33 and 7038-47 had white stickers, while 7034-37 had black stickers.
- NF 57/81 The Greater Glasgow Passenger Transport Executive (symbol 'GG' on its trains, buses and subway cars) has been retitled the Strathclyde Passenger Transport Executive. What symbols will they use now??
- NF 58/81 During the evening of Monday 19.1.81, a rear end collision occurred on line A of the RER in Paris, at Auber station, which is an underground station. There was extensive damage to the cabs of MS61 type motor cars M15127 and M15095. One person was killed and 71 passengers injured. One of the Paris newspapers of 20.1.81 (France-Soir) carried headlines 'Accident Impossible'; very reminiscent of English newspaper headlines when reporting on the Holborn collision last July (UN 225, page 286).

Yet another collision occurred on 6.2.81 at about 2200 hours on line 2, when a passenger train was routed into a siding at Nation, and collided with a stabled train. Six persons were injured, which included the driver of the moving train. It took five hours to cut him from his cab. The cars which received most of the damage were MF67E stock M10355 and M10305.

Further to the article on the RER in the previous month's journal on pages 48-54, the following additional information has been supplied by Mr.B.H.Steinkamp:-

The 'ghost' service on line A to the new extension of Torcy commenced on 29.11.80, with the passenger service from the afternoon of 19.12.80. New stations are at Noisy Champs (42.2 km), Noisiel (44.9 km), Lognes (46.2 km) and Torcy (47.9 km). Running times from La Defense are between 38.35 to 42.00 and 38.00 to 41.20 going west. The service on the new extension is one in two of the trains to Noisy le Grand Mont d'Est, except during the Monday-Friday peaks when from 0753-0912 and 1626-1819 a three-train shuttle service operates every 10 minutes between Noisy and Torcy. The maximum trains on the 'main line' of line A therefore remains at 31, but at weekends is increased to 24.

The sidings at Noisy have been reduced to two, and at Torcy, nine trains stable. The staff booking on point was changed from Noisy to Torcy. The train numbers have also undergone change, as follows:-

First digit: 4 Torcy
8 Noisy

Second digit: 5 Le Vesinet Centre, Chatou Croissy (additional to list on page 54 of UN 230).
8 Noisy-La Defense shuttles.
9 Noisy-Rueil trains.

Three additional peak hour workings start from and work to Torcy.

On the Metro, Line 12 lost its Classic stock at the end of December 1980, being now all MF67A-D stock.

CONNECTIONS

by Vicky Piccadill

A few weeks ago I had cause to go to Kentish Town by tube. My concern was not at the decrepit parts of the station, but at the bit they have done something about - the booking hall. With so many thin brown and dark cream tiles now on the walls, and the original ruby red facade outside, I found it almost impossible to distinguish between this Underground station and the McDonalds Burger Bar on the other side of the road.

Thinking about it, though, I realise that this may not be a bad thing after all. McDonalds are so recent an import that their magnetic influence on citizens and famished gricers only extends throughout the London television area. Yet they have enjoyed remarkable success winning over hundreds and thousands of people from whatever won over people from the Lyon's Corner House - obviously a large source of traffic to tap. In fact, I am convinced that the appeal of a Big Mac has become so great over the last eighteen months, that most McDonalds 'Restaurants' have become traffic objectives in their own right.

The moral is thus simple - Let's not make the most of London after all, let's catch McDoonies, the strange sect of people to whom a strawberry Shake has become as addictive as heroin. Rebuild all our stations like Kentish Town, with the mirrors and rubber plants to fill out the spaces and introduce new marketing drive based on the 'Big Met' ticket, allowing you periods of unlimited travel on the Underground. In view of the older stock on the Central and Bakerloo lines, discounted season tickets would be available, known as the 'Strawberry Shake' and the 'Chocolate Shake'. For those in possession of the 'Big Met' ticket, they might like to sample a 'Big Shake' when they travel between Finchley Road and Wembley! The Central Tube Rover would be renamed the 'All-the-way-rounder', and on payment of a supplement you could buy an 'All-the-way-rounder with ease', allowing bus travel as well. The 'Deep Freeze' season ticket would add on the Waterloo & City line if you needed it.

Some of the other details have yet to be worked out of course, and any suggestions on how to adapt 'You'll enjoy the difference at McDonalds' to LTs need, or how to incorporate a fish-loving vicar with a television commercial about D78 stock will be gratefully received. However, there is one clear way to attract new revenue: The real light at the end of the tunnel is in new signs: ever thought how easily the McDonalds Golden Arches 'M' symbol can be adapted for the Underground, and incorporated in the LT roundel!

This article first appeared in 'Fourth Rail', journal of the London Transport Staff Railway Society. It is reproduced with their kind permission, and our thanks.

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