UNDERGROUND NEWS

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JUNE 1987

THE TIMETABLE

Tuesday 2 June

Evening visit to the Rapid Transit Link at Gatwick Airport. Applications no longer accepted.

Friday 12 June

Talk, 'The New Track Recording Car and Pilot Motors' by Mr.R.J.Greenaway. 19.00 for 19.15 in the Conference Room, Baden-Powell House.

Sunday 21 June

North Weald Bus Rally and Transport Enthusiasts' Bazaar. Details on front cover of UN 305.

Sunday 28 June

Library Evening, 16.00 to 21.00. The Society's Library open for inspection at 62 Beauval Road, Dulwich, London, SE22 8UQ.

Friday 3 July

Talk, 'New Light on the Northern Wastes' by Mr.J.Blake and Mr.J.James. Further details on front cover of UN 305.

Sunday 5 July

LPTL's Annual Walk over the abandoned sections of the Northern Line extensions. Full details on pages 93/4 of UN 305.

Friday 10 July

Talk, 'The Modernisation of London Underground Stations', by Mr.D.Hall, Architectural Consultant. 19.00 for 19.15 in the Conference Room, Baden-Powell House.

Tuesday 28 July

Library Evening, 17.30 to 21.00. Other details as for 28 June.

Friday 14 August

Talk, 'London Underground Signalling' by Mr.J.Tilley. 19.00 for 19.15 in the Conference Room, Baden-Powell House

Sunday 23 August

Library Evening, 16.30 to 21.00. Other details as for 28 June.

Friday 11 September

Talk, 'Acton's New Workshop' by Mr.I.R.Keys. 19.00 for 19.15 in the Conference Room, Baden-Powell House.

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RUNNING OR SPARE ?

A two-part look at trainmen's work on the London Underground

Part I: Rosters

by

Piers Connor

Ever since the train crews of the London Underground secured the right to an eight-hour working day (inclusive of a half-hour meal break) in 1919, the nature of train crewing has changed very little. Of course the number of men per train has dropped from a maximum of eight per train on the District down to three on the tubes during the early 1920's and then two (motorman and guard) and then one recently with OPO (One Person Operation) but the allocation of work is much the same. This article looks at a trainman's duty roster and how it works.

A man's (or nowadays also woman's) first introduction to how train crew duties are allocated is during his/her training. In the days when enough labour was available and no regard was paid to where a man lived, the instructor of a class of newly recruited guards read out the start times of the duties to which each trainee had been allocated. The trainee was sent to a depot to work on a train with its rostered crew to get experience "on the job". Late on a Friday afternoon at the end of their train equipment class the aspiring guards would hear their instructor say, "Pay attention! These are your duties for next week!"

"Mr Adams"

"Yessir?" (In those days even instructors were still addressed as "Sir!")

"Where do you live?"

"Acton, sir"

"Well, what a shame! You start 316 duty Acton Town at 7.30 a.m."

Mr. Adams breathed a sigh of relief. The instructor's sarcasm was lost on him. He had heard all about these early duties and how difficult it could be if you were sent somewhere a long way away from home. He was lucky. He lived nearby and he was getting a 'late' start.

How would the others get on?

"Mr Brown?" called the instructor, "Where do you live?"

"Staines, Sir!"

A glint appeared in the instructor's eye. He could be seen suppressing a smirk as he looked at the slip of paper in his hand. "Staines? Where's that? It's not on the Underground is

it?"

"No Sir, it's the other side of Cranford aerodrome from Hounslow."
"Well arean't you the lucky one. You will report for 401 duty at Upminster."
"Yessir. When does it start, sir?"
"Oh yes. I nearly forgot to tell you" said the instructor barely hiding his glee.
"4.17 a.m."

In such a case the unlucky man would have to travel to his depot the previous night and spend the small hours there snoozing as best he could. Nowadays, much more effort is made to match training duties with residential circumstances and such sadism is thwarted. In addition special staff travel facilities are much more widespread today. The chronic staff shortages of the early 1970's and the recognition that shiftwork is generaly unpopular with many people forced a more enlightened attitude.

A trainman will nominate a depot of his choice and will be sent there as soon as a vacancy is available (according to his position in the queue). In the meantime he will work at the nearest place where there is a vacancy. Once appointed, he will be given a place on the roster. Duties are allotted on a weekly basis, "early" turns alternating with "late" turns. An early turn is any turn which starts before midday, a late turn any which starts later than midday. Each duty is given a number. A duty number represents a day's work. The actual work content is given on a separate "duty schedule".

A typical roster can be seen below.

Looking at the roster there are several peints to note. The roster does not show the work content, only the duty numbers. Sundays are allocated on an alternate basis given an average of one "on" in two. Mondays-Saturdays are all counted as weekdays and any one day can be counted as a rest day. A rest day is covered by a "rest day cover" as shown in week 6, where the crew works a different turn each day. Nights are on a 7 day week basis, the missed rest day being allocated the next week. The two rest days following nights and the Monday rest day of the following week are combined with a Sunday off to give a four-day weekend.

A split turn is designed to cover both rush hours. The work is arranged as four hours on, four hours off, four hours on, but the turn is paid over the whole twelve hours to compensate for the inconvenience of travelling to and from work twice in a day. They always carry a Saturday rest day since there is no rush hour on a Saturday. They are

SPECIMEN SECTION OF TRAINMEN'S DUTY ROSTER

Week	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Notes
9,15		00.1	1	R.Key	Lit	M yd	hop	falk, 'Actob's New Works
1	-	10	10	10	R	10	10	Early turn, R = Rest Day
2	6	34	34	34	34	R	34	Late turn
3	-	2	R	2	2	2	2	Early turn
4	13	27	27	R	27	27	27	Late turn
5	21	44	44	44	44	44	44	Nights - counts as 'early'
6	-	24	25	27	33	R	R	Late rest day cover
7	-	R	1	1	1	1	. 1	Early turn (the earliest!)
8	2	31	R	31	31	31	31	Late turn
9	YAVEIIA	18	18	18	18	18	R	Split - counts as 'early'
10	27	49	49	49	R	49	49	Late turn
11				Cover				Holiday cover on early shift
12			E	Cover				Holiday cover on late shift

much sought after by crews because of the combination of high pay and the Saturday off. Naturally they are limited in number by the unions who, contrary to the wishes of many, regard the restriction on employment which they cause as politically unacceptable.

The way in which rest days are covered is shown by week 4, who's crew has a Wednes-day rest day. On Wednesdays, that duty (No.27) is worked by the crew on week 6 doing a rest day cover duty.

Absences are covered by "spares", crews kept at the depot on a standby basis. Week 10 shows a spare turn, No.49, where the crew will report to the depot office at a set time, say 15.00 hours and await instructions. They will hope (a) that everyone turns in on time (sadly a forlorn hope these days) and (b) there are no failures or disruptions to the service which will require them to fill in for crews delayed by late running.

In the halcyon days of the 1950's some lines ran so well (and crews, who received little or no pay when absent or sick, generally came to work on time every day) that the spares had an easy time of it. At Northfields, which had a cinema across the road from the station, the three late turn spare crews used to take it in turns to watch the films. They were always given the same two seats in the back row so that, in the unlikely event of their being needed, the cinema manager, on receipt of a message from the Yardmaster, could find them. On one occasion when he couldn't find them, the manager had a notice superimposed on the screen during the film which read "Will the 3 o'clock spare motorman please report to the station". The audience was highly amused.

On joining the roster, the new man will fill the vacancy and will progress through each rota week as he completes the duty of that week. He will go through the whole roster until he gets back to where he started from and then he will go through it all again. His holidays are covered by "Annual Leave Covers" as shown by weeks 11 and 12 on the roster. Normally there are about 10% spare men and 10% leave covers available at a depot.

At almost all depots on the Underground the roster for drivers and guards is the same. "You work as a team" recruits were told. Only at Neasden and Baker Street were the drivers and guards on different rosters. This was a throwback to the days when the Metropolitan Railway ran 'links' like those on the main line railways. There was the "Fluffy" link for newcomers who got the odd jobs, the loco link (electric locomotives), the steam link, the Circle link and the "Long" link which worked the Watford and Uxbridge roads. This system meant that a driver could get a different "mate" each week. With the two systems, it was very much a case of swings and roundabouts. There were advantages and disadvantages in having a different "mate" each week. Nowadays, it doesn't matter any more since OPO has killed the "mates" system.

What of the actual work content of train crew's duties? Over the last fifteen years this has increased dramatically. As a result of various pay and productivity agreements there has been a gradual shift towards higher train mileage per duty. Gone are the days

when many early starting turns finished their allotted train working after 5 or 6 hours. The rest of the 8 hour turn was referred to as "SMI" or Station Masters Instructions - the crew was available for work as required. They were rarely if ever used, the crews being allowed to go home if not needed. This was, in the days of low wages and minimal payments for shift working, a much prized perk.

Better pay and more sensible allowances for unsocial hours have been paid for by more productivity over the years since the chronic staff shortages of the early 1970's. Now, $6\frac{1}{2}$ - 7 hours is the more common level of train running per shift. To see how this works in practice we must examine the work which has to be done. The next article will deal with this in detail.

UNDERGROUND PEOPLE UNMASKED

J. P. Solan

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There cannot be many of us who, when travelling on the Underground have not wondered about some of our fellow passengers - 'That chap looks like a bank clerk', or 'she looks like a typist'.

The individuals making the 750 million plus journeys a year form a cross-section of society at large and a huge diversity of life style and occupation. Recently, a study was conducted to gain some hard facts about the type of people using the Underground and their life styles. No, this study is not part of a sinister plot of some description. It was conducted by London Transport Advertising to get some facts about passengers to enable them to sell more advertising space to advertisers. It would appear that advertising on the Underground was only being considered by firms, if there was money left in their budget after advertising in the media and elsewhere. LT Advertising needed Market Research to indicate to potential advertisers the sort of people that would be reached by advertising on the tube, thus hopefully encouraging more firms to advertise on the Underground. To this end, LT Advertising commissioned Tube Research Audience Classification (TRAC). The study analysed the travel patterns of 5,000 tube users over one month and gained details of their life style characteristics. This revealed the following facts: most tube passengers are an up-market, upwardly mobile lot, and 62% belong to social class groups: -

'A' Professional status; i.e. Doctors, Lawyers,
'B' Managerial and Technical Staff,
'C1' Supervisors, Policemen, 'White Collar' Office Workers.

These groups are twice as likely to have incomes of more than £15,000 per year, most have 'Plastic Money Cards' of some description, and have Bank and/or Building Society accounts. They are less and/or Building Society accounts. They are likely to be smokers, which, in view of the smoking restrictions on the Underground, is just as well, they will not need a quick "drag" on the way to work. As for drinking habits, they are more likely to drink wine rather than beer. All this makes the passengers sound like a load of 'yuppies' or 'Sloane Rangers', but there you go. TRAC also breaks the survey down into age groups, working women etc.

So, going by the above we are likely to see more adverts for 'plonk' rather than lager, and for

plush restaurants rather than 'burger and chips. A tube car advert costs £2.50 a month, and the cross-track platform posters between £120 and £350 per month.

POINTS OF INTEREST

Further to the report of the District Line OPO talk (UN 304, pages 69/70), some TV monitors were installed in the 1970's on the Hammersmith & City Line. Some (or all?) of these worked different to those now being used, in that the train had to occupy the platform track circuits for them to work. It will also be recalled that many stations on the Hammersmith & City and Circle Lines had emergency stop plungers (similar to those on Victoria Line platforms) fitted, although never connected for use. It was the intention that if these were operated, a series of three red lights would have illuminated in front of the driver, on departure from a station. Many of these fittings have since been removed, although some still remain, as a monument to (then) LT's long struggle to actually get OPO off the ground.

TELEVISION REVIEW

THE SOUTH BANK SHOW - A film by Tony Knox on Art and the Underground. London Weekend Television, Sunday 1.3.87 at 22.30.

This hour-long programme attempted to show the character of the London Underground by way of a collage of extracts from films, television programmes, reading of poems and brief documentary sections.

Introduced from the disused eastbound platform of Wood Lane station, the film opened with a short clip from "Thunderbirds", a children's puppet series produced in the 1960's by Sylvia and Gerry Anderson, which showed scenes in a model of Piccadilly Circus station. This was the first of many short pieces shown in the programme, of which the most notable, from a curiosity point of view, was a clip from "The Human Jungle", made in 1964, showing Joan Collins (of Dynasty and airline swearing fame!) taking her clothes off as she prepared to jump off the platform into the path of an approaching 1938 stock train. She was saved by a hero and we were plunged into a Sherlock Holmes mystery, as the Sherlock Holmes Society discussed his connections with the Underground at the end of Aldgate platform and near Gloucester.

In addition to the film clips, there were short interviews with former shelterers from the World War Two bombings, a survey of work by the poster artist E. MacKnight Kauffer, some shots of the (present) Piccadilly Line from the cab of a 1973 stock train and, amongst other things, a conducted tour of the King William Street tunnels around the former C & SLR terminus by Mr. Printz P. Holman of the City and South London Railway Society.

There were some amusing scenes showing Ken Ellis (of 'Tube Theatre' fame - a sort of 'Underground' one-man show), pretending to get his newspaper in a mess by trying to extract it from closed tube car doors. There were some poems with Underground related themes, the best of which was 'The Lament of the Banana Man' by Evan Jones:-

".... I ain't complainin',

If it's cold, it cold.

If it rainin', it rainin'."

which told of a Jamaican ticket collector's life in London. A favourite piece from the whole show was, in the opinion of one of your reviewers, was a series of extracts from the film "Bulldog Jack", made in 1935 with Jack Hulbert, which showed working models of Central London stock running in tunnels and in a depot. The interior of a car 'set' also showed an interesting line diagram, with stations at:

LIVERPOOL ST.
BANK
POST OFFICE
CHANCERY LANE
HOLBORN
BLOOMSBURY
NEW OXFORD ST.
LANGHAM
CAVENDISH STREET

GLOUCESTER GATE
BAYSWATER
CAMPDEN HILL
KENSINGTON PARK
HOLLAND ROAD
WHITE CITY
NORTH PERIVALE
EAST PERIVALE
WESTERN AVENUE

There was also one unidentifiable station between Cavendish Street and Gloucester Gate. The whole piece was better than the real thing!

This is the kind of programme that television does best. Although there were many interesting rolling stock and station views spanning many years, these were merely incidental, since the programme's intentions were to show the atmosphere of the Underground, rather than to be a technical documentary. In this writer's opinion, the programme succeeded splendidly and was the best attempt yet to define and portray the fascination of the Underground.

AJR/PRO

BOOK REVIEW

THE NEW GIRLFRIEND by Ruth Rendell, (Arrow Books, 1986), price £1.95p.

The short stories in this book by the author of The Killing Doll are for the most part about murder, but the last, The Green Road to Quephanda is an exercise in the genre of science fiction fantasy. The story is set on the disused Finsbury Park - Highgate High Level line, and evokes the present day atmosphere of this line well. At first it appears that the author has botched her geography and situated Park Junction to the south of Highgate, but one should never under estimate Mrs Rendell, and all the mystery is eventually resolved.

LETTERS TO THE EDITOR

Sir, same yes

Premature Central Line Extension ?

I have never seen any mention in our journals of the premature extension of the Central Line from Liverpool Street to Mile End which is shown on London Transport Underground Railway Map No.2, 1938. This was printed by Johnson Riddle & Co., Ltd., Southwark SE1, and is dated 1.7.1938. It will be seen that the proposed extensions to Denham, Stanmore, Bushey Heath, High Barnet, Alexandra Palace and Ongar are in dotted lines, but that the section from Liverpool Street to Mile End is a solid red line.

One Christmas, which must have been either 1938 or 1939, I was taken to a pantomine at the Peoples' Palace in the Mile End Road. We changed from the Piccadilly Line to the Central Line at Holborn and caught an Eastbound train intending to go through to Mile End. However, when we reached Liverpool Street there were cries of "All change". We thought it must refer to another train and stayed put. In due course the guard came along and asked us to change, and was most surprised when shown the map. He told us that is was not open yet, and therefore we had to change and go on to Mile End via Aldgate East.

It will be seen that on "Underground Lines No.1. 1939", the section had reverted to 'dotted' lines.

Yours sincerely, G. N. Potter

Twickenham, Middlesex. 7 March 1987.

Sir.

Sunday Church Interval

With reference to UN 304, April 1987, page 71, the Church Interval still operated when I started work on a railway now part of BR. I never heard of any railwayman going to church in the interval - uniform staff would be obliged to attend in uniform. Very many had to work all day, often 16 hours, and the interval was the only opportunity for a proper sit down meal.

When the interval was finally abolished, the District with effect from 26 July 1903, and the Met. gradually w.e.f. 7 April 1907 and entirely w.e.f. 3 October 1909, some of the staff from Goods depots, and in a few cases from Headquarters, were rostered to do a Sunday turn at passenger stations, thereby enabling regular staff to work shorter turns on Sundays.

Yours sincerely.

H. V. Borley

Bexhill, Sussex. 10 April, 1987.

FROM THE PAPERS

The Sun: 26.2.87 - Staff showers at Ealing Common and Ruislip depots have been decontaminated after Legionnaires Disease germs had been found in them.

The London Standard:
26.2.87 - Conservative MP for Ilford South,
Mr. Neil Thorne, is calling for a disused tube
tunnel at Holborn to be converted to a bunker
to store national records, which could be destroyed in a nuclear war. Unlike other Euro-

pean Countries, Britain has no bomb-proof information stores.

Finchley Advertiser:

5.3.87 - Dr. Rudolph Vis, a councillor for Barnet, and an economist, is proposing an eight-mile long new Underground line from Neasden to Bounds Green, disecting Hendon and Finchley (Northern Line) on its route. In addition interchange would be provided at New Southgate (BR) and new stations at 'Tally Ho South' and 'Brent Reservoir'. The scheme is estimated to cost £200 million at 1990 prices.

Daily Express:

10.4.87 - A 58-year old widow was flung to her death on a Paris Metro station yesterday having been grabbed by two of a group of coloured youths she brushed past, who were arguing amongst themselves. This was apparently the fourth murder on the system within a month.

City gents with umbrellas and secretaries came to the rescue of a 56-year old mugging victim at Green Park station last August. The two assailants were yesterday both jailed for 21 months, each convicted of causing actual bodily harm.

Daily Telegraph:

28.2.87 - Chris Green, Director of British Rail's Network South East, yesterday announced plans to revitalise the network. Sites are being sought for up to 50 new stations; two new stations to be opened this year are at Haddenham, between Bicester and Princes Risborough, and Lake in the Isle of Wight. By 1991 it is planned to raise the proportion of electrified lines in the South East and East Anglia from 75 to 90%. The Uckfield line is under consideration for electrification. A limited service will run via Snow Hill from October 1987, and the full service in 1988. New trains will cut running costs by a third.

3.3.87 - An article reviewing the fifth birthday of the Barbican Centre says "... a new tube station under the centre would have transformed it - in any other European capital it would have been built."

4.3.87 - Wates Build Homes plan to develop 794 acres surrounding Osterley Park. The developers would provide a new underground station on the Piccadilly Line (between Osterley and Boston Manor), near to 400,000 square feet of park-and-ride shopping. There would be 16 acres of high technology and light industry, and 100 acres of housing. The National Trust strongly opposes the scheme. Some of the land would be kept as parkland and transferred to Osterley Outer Park.

5.3.87 - The Government has granted permission for the Cambridge-Royston line to be electrified, at a reduced cost of £2½ million.

7.3.87 - A fight is on to save the mural of a bus, tram and train outside the L.T. Covent Garden Museum. It must be removed for building work, but the problem is to remove it intact.

13.3.87 - The Piccadilly Line platforms at Gloucester Road station will be closed for 16 months from the end of August 1987 so that new lifts can be installed as part of a £4 million modernisation scheme.

14.3.87 - British Rail engineering has announced

further redundancies in workshops, with 600 at Crewe, 350 at York, 100 in Derby and 350 elsewhere.

19.3.87 - A Bill to enable British Rail to link Midland services with the Southern Region via Snow Hill was given an unopposed second reading in the House of Lords last night.

20.3.87 - A teenager from Dominica was arrested on the New York subway in a hunt for fare dodgers, but was found to have access to \$ 1 million in counterfeit notes.

From 29 March, BR will provide non-stop trains from Victoria to Dover to connect with hovercraft, instead of the Charing Cross trains.

23.3.87 - The scheme for a French Disneyland at Villeneuve Le Compte has been approved by the Prime Minister. It will be more heavily capitalised than the Channel Tunnel. The decision has been made despite ferocious local opposition. Euro-Disneyland will be connected to central Paris by an RER line.

26.3.87 - The Government proposes to build a £150 million high speed road in West London, alongside the West London Railway, from Holland Park Avenue to the Thames.

1.4.87 - The Government has approved the £140 million extension to the Docklands Light Rail-way from Poplar to Beckton, provided that the cost can be raised without calling on public funds. It has also approved a huge scheme to redevelop the Royal Docks for housing, leisure offices and industry.

4.4.87 - "Poems on the Underground" has attracted many enquiries, and the print run is being increased for the next batch of five poems. The idea is also being copied on public transport in Dublin and Melbourne.

6.4.87 - BR is considering seeking powers to impose a £10 instant fine on fare dodgers.

8.4.87 - The Transport Minister announced that there would be a public inquiry into LRT's plan for a coach station at Paddington.

9.4.87 - The former BR headquarters at Marylebone is to revert to being a hotel; it was first built as the Great Central Hotel in 1897.

10.4.87 - London Transport said yesterday that, at more than two million a day, the number of passengers using the Underground is up by almost half compared with three years ago.

14.4.87 - French transport authorities are becoming concerned that the Paris Metro is becoming one of the most dangerous Metro systems. A Paris police report says that 1,500 drug addicts, tramps and muggers inhabit the system. Recently a woman was fatally pushed under a train by fighting drug dealers, and in another incident a businessman took a machette from his briefcase and hacked a drunken tramp to death. A Paris newspaper named ten stations to avoid, but a Police spokesman said that all stations were now dangerous.

London Daily News:
23.3.87 - The leader of Hammersmith Council strongly opposes the new West London relief road, and wants an improved local service on

the West London Line instead, with up to six new stations.

Financial Times:
13.4.87 - "The Arts" section reviews the current state of station modernisation on the London Underground. It recalls the high standard of station design and decoration of the 1930's and shows great 'concern' over what is happening to stations today. Two leading societies, the Victorian Society and the Thirties Society, have produced a report 'End of the Line? The Future of London Underground's Past'. It reviews the Underground's art and design history through the years, being full of praise for the works of Leslie Green, Edward Johnston and Charles Holden - to rame but three. It then goes on to criticise modern-day modernisation: '.. the trivial trellises at Sloane Square the meretricious Sherlock Holmes style tiles at Baker Street.' At Tottenham Court Road the rarely cleaned light coloured tiles, along with Eduardo Paolozzi's mosaics '.. undermines any improvement no one can call his work there very successful. The London Underground has been described as '... the finest anthropological museum in the world and if cared for properly, would be one of the wonders of the architectural and design world ...'. The FT report concludes by saying that Londoners are proud of their Tube and do not like what is happening to it - ' ... a once pioneering organisation with the highest standards ... have fallen for image making that looks cheap now and will look worse in a few years' time .. '.

NEW WORKING TIMETABLES

11 May 1987

Main highlights of the new working timetables to be introduced on the Metropolitan, District and Piccadilly lines from Monday 11 May 1987 were detailed in Underground News No.302 (February 1987), page 21. The following review enlarges on those notes.

Metropolitan Line

WTT No.287 (No.1 Section)

On the Hammersmith & City and Circle lines, service intervals are, in the main, unchanged, but certain revisions have been made to timings to cater for the more major changes on neighbouring sections (i.e. No.2 Section and on the District Line).

On Mondays to Fridays, the solitary Barking sidings stabler between the peaks has been transferred to stable at Hammersmith. This means that the last train leaves Hammersmith for Barking at the end of the morning peak at 08.39 instead of 09.25, but later trains operate as far as Plaistow, the last leaving Hammersmith at 09.42. Similarly in the reverse direction, the last morning service from Plaistow departs at 10.33 (previously 10.07). In the afternoon, with the absence of a train to start from Barking sidings, the first westbound is at 16.33 instead of 15.47. After the evening peak the last train to Barking arrives 18 minutes later at 19.31, still originating from the outer rail Circle service.

On Saturdays, some early morning trains have been retimed to reduce some extended intervals. For example, the 10-minute service from Hammersmith commences at 05.20 instead of 05.48, while the 10-minute inner rail Circle service starts from Farringdon at 05.47 instead of 06.03. In the evening the 12-minute service which operated hitherto from about 21.00 (three trains less in service) has been abandoned and replaced with the 10-minute standard.

There is no great change to Sunday services, except for minor alterations to timings with regard to the improved District Line service on that day (q.v. below). Four Circle trains (inner rail Nos. 114 and 115, outer rail Nos. 123 and 125) continue to be crewed by the District Line.

WTT No. 288 (No. 2 Section)

Many improvements have been incorporated in this timetable, some of which restore practices to the pre-staff shortage period of the early-1970's, but some go back much further - indicating the present upward trend in passenger usage of the Underground.

In the peaks, the number of trains per hour has been increased from 24 to 26, one each extra per hour to and from the Amersham and Watford branches. Revived in this timetable is the practice of non-stopping Harrow-on-the-Hill by fast Amersham/Chesham trains in the peak direction. Those trains involved are -

170.00	SOUTHBOUND	Pass	egbirdati mo-
[08-61	rom	Harrow	To
07.19	Amersham	07.42	Aldgate
07.31	Chesham	07.592	Aldgate
07.52	Amersham	08.15	Aldgate
08.03	Chesham	08.312	Aldgate
08.25	Amersham	08.48	Aldgate
I CEAR!	- NORTHBOUND	EVENING Pass	quintil no
. 1	rom	Harrow	То
16.28	Aldgate	17.03	Amersham
16.48	Aldgate	17.23	Amersham
17.12	Aldgate	17.47	Chesham
17.28	Aldgate	18.03	Amersham
17.45	Aldgate	18.19	Chesham
18.03	Aldgate	18.36	Amersham
18.17	Aldgate	18.50	Amersham
L Will avenue	THE RESERVE TO STATE OF THE PARTY OF THE PAR		

A proposal to non-stop the 08.37 and 08.53 ex-Amersham (09.00 and 09.16 at Harrow) was dropped.

There are now 43 eight-car trains in service (plus three), and, of course, the Chesham shuttle four-car set, which continues to stand in Chalfont & Latimer bay platform when the two through trains operate.

Both peak periods have been extended. In the morning, the first train through to the City leaves Baker Street at 07.18 (previously 07.41), the last at 10.06 (09.53). In the evening peak the first leaves Baker Street at 15.24 (15.42) and the last at 18.51 (18.06). In the opposite direction, the first 'main line' train from Aldgate is at 07.40 (08.03), the last at 10.50 (10.09). In the evening the first from Moorgate is at 15.48 (16.04), the last from Aldgate being at 19.12 (18.31).

Semi-fast services to and from Watford and Uxbridge in the peaks (southbound morning, northbound evening) continue to stop at Harrow-on-the-Hill, as do the semi-fast Amersham trains. Harrow-on-the-Hill still has, therefore, an attractive fast service to and from London in the peaks, despite the small number of non-

stopping trains. Timings of the semi-fast Watford and Uxbridge services are as follows, with previous times shown in brackets:

	dge to		rd to gate
07.28 07.45 08.00 08.17 08.34	(07.25) (07.37) (07.57) (08.17) (08.31) (08.49)	07.31 07.52 08.03 08.19 08.44	(07.44) (08.04) (08.19)
	itreet to		treet to
17.11 * 17.26 * 17.42 * 17.57 * 18.32 18.54 *	(16.51) * (17.12) * (17.32) * (17.52) * (18.09) *	16.58 * 17.21 * 17.38 * 17.49 18.10 * 18.27 * 18.47	(17.22) * (17.42) * (17.57) *

Note * Starts from Aldgate.

Two unusual workings in the peak 'fringes' include an 09.32 Watford to Wembley Park and a 16.00 Wembley Park to Watford. This is because one train no longer stables at Watford in the midday period. Similarly, trains no longer stable midday at Moorgate and Aldgate, but one extra is transferred to Uxbridge, giving an improved 10-minute service TO that destination, arriving there between 09.54 and 10.24. The return extra afternoon working leaves Uxbridge at 16.30.

During off-peak periods (midday and evening MF and for most of the day Saturdays), the LU Baker Street-Amersham fast service has been doubled from an hourly service with two trains, to halfhourly with four. The hourly LMR Aylesbury-Marylebone service continues basically unaltered and fits between a 30-minute gap in the LU service once per hour. Connections to and from Chesham have been revised so that they mostly connect with LU trains, and hence passengers travelling between Chesham and the Aylesbury line have far from ideal connections at Chalfont & Latimer (generally about 20 minutes wait, but some as much as half an hour!). Overall, the Chesham shuttle service has been reduced by one round trip, with some late night intervals wider than the normal 30 minutes. However, the increased LU service has seen the end of the 64-minute gap in the southbound service between 22.04 and 23.08 ex-Amersham, with no London connection off the 22.33 ex-Chesham, and similarly the previous 40-minute gap from Watford (22.16 to 22.56) has been eliminated. On the Watford and Uxbridge branches on Monday to Friday evenings, the 15-minute pattern has been restored to operate up to about 21.30.

On Monday to Saturday mornings an earlier southbound start to the service has been introduced from Amersham, making the first departure more realistic at 06.00 instead of 06.38. This 06.00 train forms the stock of the 06.36 (06.37 SO) ex-Watford and is the only booked passenger working via the Watford North Curve. Arrival at Baker Street is (eventually) at 07.16, but by changing at Rickmansworth, passengers can catch the 06.00 ex-Chesham which is five minutes behind, and arrive at Baker Street at 06.45.

On Saturdays the opportunity has been taken to space-out more evenly the early-morning north-bound Watford service, so that from 07.13 at

Harrow-on-the-Hill, the 20-minute service is provided, unlike the previous timetable, where there were trains from Harrow at 07.03 and 07.13, with nothing then until 07.49! Between 10.00 and 18.30, the Watford and Uxbridge services have been restored to the 15-minute pattern - a much needed and welcomed improvement.

On Sundays, improvements have been made to early morning services, both northbound and south-bound. From Baker Street, the 10-minute alternate Watford/Uxbridge pattern starts at 07.22 instead of 08.10, while from Uxbridge, early departures in the first hour of service are at 06.54, 07.18, 07.27 and 07.55 (previously 06.54, 07.23 and 07.48). The 07.38 ex-Amersham on Sunday mornings, which previously ran 'fast' from Harrow to Finchley Road, is now a stopping train. Throughout the day a 30-minute fast Amersham service is now provided, allowing an improved service - 20 minutes - to Watford, instead of alternate 20/40 mins. With the consequential revision to timings of the Chesham shuttle, the operating hours of this service has been extended slightly: 08.14 to 22.43 ex-Chesham, instead of 08.30 to 22.29, and the late-night running of the Chesham four-car train has been curtailed at Harrow-on-the-Hill, instead of running through to Baker Street, which was the only four-car working south of Wembley Park.

With the revised and increased services on the Metropolitan Line, the timings of some of the interesting 'rusty-rail' workings have been altered, some having been moved to the 'small hours'. On Mondays to Fridays, these include -

WTT No. 288	Previously
00.21 - 00.26	20.01 - 20.07
05.25 - 05.33	19.31 - 19.38
19.06 - 19.16	19.28 - 19.36
00.09 - 00.15	00.07 - 00.15
19.40 - 19.47	10.31 - 10.35
01.07 -01.11	19.27 - 19.31
00.55 - 01.03	19.15 - 19.22
* 19.52 - 19.58	*19.48 - 19.53
	00.21 - 00.26 05.25 - 05.33 19.06 - 19.16 00.09 - 00.15 19.40 - 19.47 01.07 - 01.11 00.55 - 01.03

Note * passenger working (all others empty).

WTT No.289 (East London Line)

This new timetable provides an increased midday off-peak service on Mondays to Fridays, with four trains at 7½-minute intervals (15 minutes each to New Cross and New Cross Gate). No changes have been made to the East London service at other times, but to coincide with the reintroduction of four-car A60 stock trains on the line, stock transfers are once again scheduled to and from Neasden. When the Astock previously operated on the East London Line, any four-car unit could work the service. Since OPO conversion, however, A stock is now limited to seven double-ended units 5056, 5058, 5060, 5062, 5064, 5066 and 5232, but no doubt some of the seventeen de-icing double-ended units will also work there, even though intended for the 'main line' service. This new timetable also incorporates a 'no Shoreditch' Sunday service.

Piccadilly Line

WTT No.22

On Mondays to Fridays there is no change to the total stock requirements (72 x 6 and 1 x 3) but services have been adjusted in the morning peak so that the number of Wood Green reversers have been reduced - from ten between 07.35 and 09.23 to six between 08.04 and 09.10. As some trains have therefore been extended eastwards to Arnos Grove or Cockfosters, the extent of the maximum 2-minute eastbound service has been reduced from 08.00 - 09.10 to 08.13 - 09.09 at Acton Town. The complete elimination of the night time Uxbridge stabler (empty at night, staff train in the morning) means that four trains start from Uxbridge in the morning, running direct to Hillingdon, and consequently four Hillingdon trains return at the end of the evening peak. These leave Cockfosters at 17.00, 17.22, 17.32 and 17.52. The period of operation west of Rayners Lane on the Uxbridge branch by Piccadilly trains is largely unaltered, but some minor changes include slightly earlier and later services as detailed below.

Sant vd Lill-so	3-10-10	rish sufer		
		ning	Morr	
	Fi	rst	La La	St
From Uxbridge	06.47	(06.48)	09.19	(09.07)
From Ruislip	06.46	(06.47)	09.32	(09.30)
ajaghla hldgata Alegata		ning	Ever	ning st
From Uxbridge	17.00	(17.06)	19.16	(19.08)
From Ruislip	16.34	(16.53)	19.47	(19.53)
	Mor Fi	ning rst	La	ning
Acton Town to Uxbridge	06.09	(06.10)	08.35	(08.20)
Acton Town to Ruislip	06.09	(06.10)	08.51	(08.52)
Acton Town to Uxbridge (from London)	07.12	(07.20)	08.35	(08.20)
Acton Town to Ruislip (from London)	07.12	(07.20)	08:51	(08.52)
Chesham tones to stand ou when the two		ning		ning
Acton Town to Uxbridge	16.22	(16.21)	18.44H	(18.59Н)
Acton Town to Ruislip	15.57	(16.21)	19.09	(18.46)
Acton Town to Uxbridge (from London)	16.22	(16.36)	18.44H	(18.59H)
Acton Town to Ruislip (from London)	15.57	(16.30)	19.09	(18.46)

Note 'H' to Hillingdon. Last through Uxbridge is at 18.35 (18.30).

It is pleasing to note that the afternoon Ruislip start of service has reverted to its earlier time 'through the road', and it is interesting to see that all short workings from South Harrow to Rayners Lane or beyond now carry passengers instead of running empty, except for the 09.09 on Saturday morning. A further improvement after the Monday to Friday evening peak is for the South Harrow stablers to return empty from Rayners Lane, so that services from west of that point (i.e. from Uxbridge or Ruislip) work in passenger service to Acton Town or beyond.

There is no change to Saturday stock totals (40 x 6), but the maximum service (4 minutes central area, 4-8 Heathrow, 10 Rayners Lane), now starts some two hours earlier at about 09.00. Through the central area this is represented by the more frequent service beginning at 08.57 Wood Green westbound (previously 11.01) and 09.12 (11.07) Acton Town eastbound. The single Saturday Ruislip working runs correspondingly earlier at 08.55 (11.11).

Early on Sunday mornings, the Rayners Lane service has seen the end of the 30-minute gap between 07.30 and 08.00 at Acton Town and better spacing has occurred on eastbound services. After 10.00 two extra trains are required for service, in connection with increasing the Rayners Lane service from 20 to 15 minute intervals, and extending the service from Wood Green to Arnos Grove. With eight trains per hour to and from Heathrow and four on the Rayners Lane branch, the central area service is improved to an even 5-minute service (12 trains per hour) instead of 5-52 minutes (11 tph) as hitherto, the latter type of service creating uneven branch intervals with stand times at some junction stations. With no Wood Green reversers on Sundays, Arnos Grove has a 5-minute service, with every third train (from Heathrow) going forward to Cockfosters. Services are selfcontained, numbered as follows -

251-257, 260-262 Rayners Lane-Arnos Grove 310-317, 320-322 Heathrow-Cockfosters 330-337, 340-341 Heathrow-Arnos Grove

The serious student of London Underground timetables will by now realise that a 4 tph Piccadilly Line service to Rayners Lane is hardly compatible with a 3 tph Metropolitan Line service to Uxbridge. Apart from once per hour, connections are far from satisfactory, to say the least -

WESTB	OUND	EAS	TBOUND
Piccadilly arrive	Met	Met	Piccadilly
	depart	arrive	depart
Rayners	to	Rayners	Rayners
Lane	Uxbridge		Lane
14½ 29½ 44½ 59½	28 - 48 08	07½ 27½ 47½	14 ½ 29 ½ 4 ½ 59 ½

One can imagine the sheer frustration of Piccadilly Line passengers on the '29½' arrival sitting outside Rayners Lane for the '28' Met. to go in front, and then having to spend the next 18 or so minutes waiting for the next Met - at Pneumonia Junction!

District Line

WTT No. 114

With the return of the A stock to the East London Line, sufficient trains of D stock have thus become available to further increase District Line services. Five extra trains are scheduled in this new timetable, making a total of 66 xD and 9 xC - the latter unchanged - a stock requirement similar to pre-December 1982 levels. How-

ever, the peak service has not wholly reverted to previous full-service patterns, but has been improved where it is needed. On the Wimbledon branch, for instance, three trains in 10 minutes are scheduled in the peak direction, reversing at Tower Hill has been eliminated between 08.02-09.23 and 16.46-17.43 - with such trains extended to Plaistow or Barking (there are three Plaistow reversers in the morning peak and four in the evening). Ealing Broadway also benefits from an extra train in each peak.

During the Monday to Friday midday off-peak, the Wimbledon-Tower Hill service has been increased from 20 to 15 minutes, while the 10-minute service from Ealing, alternately to Tower Hill and Barking, is wholly extended to Barking. Coupled with a 10-minute Richmond-Upminster service, this means that up to Barking, the number of trains per hour has been increased from 9 to 12. The midday service requires four extrains in service (total 47). Through the central area, the service is increased from 23 tph to 24-the latter figure giving a neat and tidy 2½-minute service.

Because of the increase in numbers of passengers using the Underground, the evening 10/20 pattern has been deferred to start at about 21.00, the service after the evening peak being of the more frequent $7\frac{1}{2}/15$ pattern.

Some train numbering has been revised, and on MF the set numbers are allocated as follows:

1-22 30-47 51-56 71-75 151-152	Richmond-Upminster Ealing-Barking Wimbledon-Tower Hill Wimbledon-Edgware Road Olympia branch	Total off-peak trains:
101-117	Upminster depot stablers	Central of
121-126	Ealing Common stablers	
131-132	Barking sidings stablers	[Total:
141	Parsons Green stabler	28 trains
161-163	Hammersmith (Met) stablers	
171	Parsons Green stabler)

Train numbering on Saturdays has also been revised to match improved services. These are:

1-6	Richmond-Upminster	1.1.1.18
11-15	Richmond-Barking	E TO SERVICE
31-36	Ealing-Upminster	The state of the s
41-45	Ealing-Barking	[Total:
51-56	Wimbledon-Upminster	42 trains
61-65	Wimbledon-Barking	A Common 3
71-77	Wimbledon-Edgware Road .	in a chair
151-152	Olympia branch	1
ALC: A SECRET PROPERTY AND ADDRESS.		wint and

On Saturdays services have been increased on the 'main line' from 10/20 to 7½/15 between 10.00 and 19.00. The Edgware Road-Wimbledon branch remains at 10-minute intervals between 11.00 and 19.00. A total of 42 trains (plus eight) are required to meet this enhanced service and although the western branches operate every 15 minutes, the east end of the line has a 5-minute service to Barking and 10 minutes to Upminster. As each western destination is served from the eastern destinations in turn, six separate self-contained 30-minute services are provided (see numbering above), except for the Edgware Road and Olympia branches.

After 21.00 on Saturday evenings, with the Circle Line remaining operating at 10-minute intervals, instead of 12 minutes as hitherto, the number of trains through the central area is increased by one to 15 tph, allowing an even

4-minute service instead of an erratic 22-6 minute frequency!

To cater for heavy traffic on the Wimbledon branch on Sundays, a 20-minute Wimbledon-Tower Hill service has been reinstated after an absence of over 17 years, restoring a 4-minute central area service on Sundays. The Wimbledon branch therefore has twice the service it had hitherto on Sundays. One interesting off-shoot of the revised early-morning service is that District Circle train 123 forms the first Edgware Road train from Wimbledon (07.29) before picking up its Circle working - without reversal. The first service from Wimbledon to Tower Hill is at 07.49, the last at 22.29. In the opposite direction the first train to Wimbledon from Tower Hill is at 08.17, the last at 22.37, plus a later journey at 23.48. For Richmond line traffic, two spare trains have been provided from Upminster, one standing spare at Richmond from 11.23 and the other at High Street Kensington from 11.53.

TIMETABLES IN OPERATION

11 May 1987

Line	Number	Date
Metropolitan No.1	No.287	11.5.87
Metropolitan No.2	No.288	11.5.87
East London	No. 289	11.5.87
Jubilee	No.5	3.11.86
Northern	No.36	3.11.86
Victoria	No.20	3.11.86
District	No.114	11.5.87
Piccadilly	No.22	11.5.87
Central	No.48	3.11.86
Bakerloo	No.6	12. 5 . 86

See table opposite for trains in service, etc.

SOCIETY SECTION

Change of Registrar

Mr.T.R.Baker has taken over from Mr.A.R.Blake as Society Registrar. All correspondence regarding membership and changes of address should now be sent to Mr. Baker at: 12 Marlborough Road, Forest Gate, London, E7 8HB.

A complete up-to-date list of Society Officers. their tasks and addresses, will be published in the July 1987 issue of Underground News, which will incorporate other changes that are currently taking place.

For the Attention of Australian Members

Member Mr.J.S. Hawkins would like to make contact with fellow Australian members, who are invited to write to him at -

Nierinna Road. RMB 1236, Kingston, tes etunia-Of benishnop-lies eters 7150.

ROLLING STOCK ALTERATIONS

ADD for February 1987:

1967 Tube Stock Overhauled at Northumberland Park - 3037-4037-4137-3137 25th

OPO Converted at Acton Works - 1983 Tube Stock -3605-4605-3705 6th

March 1987

1938 Tube Stock:

From Ruislip to Golders Green after P.C.M. Equipment Overhaul -

10221-012160-11221+10184-012272-12123-11184 6th

Withdrawn cars removed from Ruislip depot by road (no other details) -

11139 012342 14th

1959 Tube Stock:

Overhauled at Golders Green depot -

1198-2198-1199 5th 1208-2208-9209-1209 10th

1962 Tube Stock:

Overhauled at Ruislip depot -

1488-2488-9489-1489 3rd 1602-2602-9603-1603 13th 1408-2408-9409-1409 24th 1967 Tube Stock:

Re-entered service, Victoria Line -

3320-(4007-4107-3107) 27th

From Acton Works to Northumberland Park after collision repair -

3016-4016-4116-3116 29th

Overhauled at Northumberland Park depot -

3023-4023-4123-3123 30th

1972 Tube Stock:

From Stonebridge Park to Golders Green after Overhaul -

3401-4501-3501 8th

From Golders Green to Stonebridge Park for Overhaul - and Longovish day I a dily aldinguos

3402-4502-3502 8th

3202-4202-4302-3302 31st

From Neasden to Acton for OPO Conversion .

3259-4259-4359-3359 9th

1973 Tube Stock:

OPO Conversions at Northfields -

Unit	End	Date	Unit	End	Date
234	Α .	2.3.87	218	A	17.3.87
214	A	7.3.87	164	A	23.3.87
112	A	10.3:87	229	D	23.3.87
181	D	10.3.87	175	D	26.3.87
244	A	10.3.87	191	D	28.3.87
188	A	11.3.87	121	D	29.3.87
223	D	11.3.87	no aregne	RROT	illy Line

OPO Conversions at Acton Works -

Unit	End	Date	Unit	End	Date
856	A/D	3.3.87	890	A/D	14.3.87
894	A/D	5.3.87	872	A/D	23.3.87
880	A/D	14.3.87	868	A/D	26.3.87

Overhauled at Cockfosters depot -

138-538-338 26th

1983 Tube Stock:

From Neasden to Acton Works for OPO Conversion -

3621-4621-3721+3622-4622-3722 5th 3603-4603-3703+3608-4608-3708 12th

3602-4602-3702+3624-4624-3724 19th

MAXIMUM STOCK REQUIRED AND PERIODS OF MAXIMUM OPERATION MONDAYS TO FRIDAYS

Serafildeelfige	Morni	ng Peak	Mi	dday	Eveni	ng Peak
Metropolitan No.1 Section	30 x C6	07.20 - 10.15	25 x C6	11.30 - 15.26	30 x C6	15.56 - 18.17
Metropolitan No.2 Section	43 x A8 1 x A4	08.26 - 08.56	17 x A8 1 x A4	11.29 - 15.09	43 x A8 1 x A4	17.27 - 18.24
Metropolitan East London	5 x A4	06.36 - 10.05	4 x A4	10.05 - 15.49	5 x A4	15.49 - 19.09
Jubilee	24 x 6/7	08.06 - 09.37	16 x 6/7	10.53 - 15.29	24 x 6/7	16.54 - 18.17
Northern	84 x 7	08.27 - 09.14	50 x 7	10.47 - 15.10	84 x 7	16.53 - 17.46
Victoria	35 x 8 ATO	08.12 - 09.21	25 x 8 ATO	10.44 - 15.30	35 x 8 ATO	16.49 - 18.20
District	66 x D6 9 x C6	08.18 - 09.05	42 x D6 5 x C6	10.59 - 15.03	66 x D6 9 x C6	16.55 - 17.43
Piccadilly	72 x 6 1 x 3	08.17 - 08.55	48 x 6	10.52 - 15.07	72 x 6 1 x 3	17.12 - 18.08
Central	72 x 8 1 x 4 2 x 3 OPO	08.46 - 08.52	44 x 8 2 x 3 OPO	12.23 - 15.06	72 x 8 1 x 4 2 x 3 OPO	16.56 - 17.34
Bakerloo	25 x 7	08.24 - 09.29	17 x 7	10.21 - 15.41	25 x 7	16.38 - 18.32
	At nembed one					
Total Trains:	470	mer many est	296	Ell a baserrot	470	ojact, london
Total Trains:		URDAYS		NDAYS	470 NOTES:	nobnou , tondon
Total Trains: Metropolitan No.1 Section		URDAYS 06.18 - 23.11		NDAYS 07.50 - 22.25	NOTES:	nt figures
Metropolitan	SAT		SUI	CHARLE BUCKE	NOTES: The adjace EXCLUDE: The four E	
Metropolitan No.1 Section Metropolitan	18 x C6	06.18 - 23.11	18 x C6	07.50 - 22.25	NOTES: The adjace EXCLUDE: The four E changeover The Victor	Bakerloo Sunday trains,
Metropolitan No.1 Section Metropolitan No.2 Section Metropolitan	18 x C6 17 x A8 1 x A4	06.18 - 23.11 09.55 - 19.33	18 x C6 14 x A8 1 x A4	07.50 - 22.25 07.43 - 23.25	NOTES: The adjace EXCLUDE: The four E changeover The Victor	Cakerloo Sunda trains, o ia Line chang s (2 x 8 SO an
Metropolitan No.1 Section Metropolitan No.2 Section Metropolitan East London	18 x C6 17 x A8 1 x A4 3 x A4	06.18 - 23.11 09.55 - 19.33 05.35 - 00.06	18 x C6 14 x A8 1 x A4 4 x A4	07.50 - 22.25 07.43 - 23.25 07.52 - 14.48	NOTES: The adjace EXCLUDE: The four E changeover The Victor over train 4 x 8 Sun), The Hammer	Sakerloo Sunday trains, o ia Line changus (2 x 8 SO and
Metropolitan No.1 Section Metropolitan No.2 Section Metropolitan East London Jubilee	18 x C6 17 x A8 1 x A4 3 x A4 13 x 6/7	06.18 - 23.11 09.55 - 19.33 05.35 - 00.06 12.01 - 18.47	18 x C6 14 x A8 1 x A4 4 x A4 11 x 6/7	07.50 - 22.25 07.43 - 23.25 07.52 - 14.48 13.51 - 18.46	NOTES: The adjace EXCLUDE: The four E changeover The Victor over train 4 x 8 Sun), The Hammer Sunday spa	Sakerloo Sunday trains, o ia Line changus (2 x 8 SO an esmith & City re train, and
Metropolitan No.1 Section Metropolitan No.2 Section Metropolitan East London Jubilee Northern	18 x C6 17 x A8 1 x A4 3 x A4 13 x 6/7 39 x 7	06.18 - 23.11 09.55 - 19.33 05.35 - 00.06 12.01 - 18.47 09.22 - 22.42	18 x C6 14 x A8 1 x A4 4 x A4 11 x 6/7 39 x 7	07.50 - 22.25 07.43 - 23.25 07.52 - 14.48 13.51 - 18.46 17.23 - 20.40	NOTES: The adjace EXCLUDE: The four Echangeover The Victor over train 4 x 8 Sun), The Hammer Sunday spatempty stoot trains,	cakerloo Sunday trains, o lia Line chang as (2 x 8 SO and esmith & City are train, and k and Footbal
Metropolitan No.1 Section Metropolitan No.2 Section Metropolitan East London Jubilee Northern Victoria	18 x C6 17 x A8 1 x A4 3 x A4 13 x 6/7 39 x 7 23 x 8 ATO 35 x D6	06.18 - 23.11 09.55 - 19.33 05.35 - 00.06 12.01 - 18.47 09.22 - 22.42 11.43 - 19.18	18 x C6 14 x A8 1 x A4 4 x A4 11 x 6/7 39 x 7 17 x 8 ATO 25 x D6	07.50 - 22.25 07.43 - 23.25 07.52 - 14.48 13.51 - 18.46 17.23 - 20.40 14.32 - 22.39	NOTES: The adjace EXCLUDE: The four Echangeover The Victor over train 4 x 8 Sun), The Hammer Sunday spatempty stoctarins, but INCLUDE	Sakerloo Sunda trains, o ia Line chang is (2 x 8 SO an esmith & City re train, and k and Footbal
Metropolitan No.1 Section Metropolitan No.2 Section Metropolitan East London Jubilee Northern Victoria District	18 x C6 17 x A8 1 x A4 3 x A4 13 x 6/7 39 x 7 23 x 8 ATO 35 x D6 7 x C6	06.18 - 23.11 09.55 - 19.33 05.35 - 00.06 12.01 - 18.47 09.22 - 22.42 11.43 - 19.18 10.30 - 18.56	18 x C6 14 x A8 1 x A4 4 x A4 11 x 6/7 39 x 7 17 x 8 ATO 25 x D6 4 x C6	07.50 - 22.25 07.43 - 23.25 07.52 - 14.48 13.51 - 18.46 17.23 - 20.40 14.32 - 22.39 10.17 - 20.10	NOTES: The adjace EXCLUDE: The four Echangeover The Victor over train 4 x 8 Sun), The Hammer Sunday spatempty stock trains, but INCLUDE The two Su	cakerloo Sunda trains, o lia Line chang as (2 x 8 SO an esmith & City re train, and k and Footbal

Continued from page 110 -

3614-4614-3714+3619-4619-3719 26th 3606-4606-3706+3615-4629-3729 31st

From Acton Works to Neasden after OPO Conversion -

3623-4623-3723+3620-4620-3720 4th 3611-4611-3711+3626-4626-3726 12th 3621-4621-3721+3622-4622-3722 18th 3603-4603-3703+3608-4608-3708 25th

1986 Prototype Tube Stock:

From Metro-Cammell, Birmingham, delivered to Neasden depot -

11-21+22-12 21st (train 'A' - red)

A60 Stock:

Changeover of East London Line Training Unit -

to Neasden - 5232-6232-6233-5233 2nd

to New Cross - 5060-6060-6061-5061 2nd

C77 Stock:

From Hammersmith to Upminster for Overhaul -

5723-6723 10th 5718-6718 26th

From Upminster to Hammersmith after Overhaul -

5733-6733 12th 5729-6729 30th

D Stock:

From Ealing Common to Acton Works for repair -L126+7035+L127 18th

Service Locomotives:

Battery Locomotives -

L45 Ealing Common to Acton Works for second 'A'-end buckeye mod. 12th

LIFTS AND ESCALATORS

Lifts:

Due to the unreliability of new lifts Nos. 3 & 4 at Covent Garden, Otis lifts Nos. 1 & 2 at Covent Garden (taken out of use for removal on 16 March 1987) were reinstated on 31 March 1987, for the time being. Is this the first time that 'withdrawn' lifts have been returned to service?

Escalators:

No change.

NEWSFLASHES

NF 68/87 - Track relaying, using flat bottomed rail on concrete sleepers, took place between Westbourne Park and Ladbroke Grove on the Hammersmith & City Line during March. For this project, London Underground borrowed a BR Plasser Track Relaying machine - DRP 78220. During week-ending 21.3.87 night work concentrated on the eastbound line, with the westbound line receiving attention the following week.

NF 69/87 - Further to NF 41/87 (UN 305), 1983 Tube Stock cars 4615 and 3715 (damaged in the Neasden derailment of 20.7.86) were due to be moved from Brush of Loughborough to Hunslet (Leeds) at the end of December 1986, for repair to commence. All four cars currently at Hunslet (1972 MkII stock DM 3557 and 1983 stock cars 3629, 4615 and 3715) under repair are expected to be complete by the summer of 1987.

NF 70/87 - Further to NF 39/87 (Croxley Green branch, UN 304), on Friday 27.3.87 the morning service was being worked by a BRCW class 104 DMU (M53536 and M54179), carrying no blind at one end and 'Bletchley' at the other. Your reporter asked the driver if this was an unusual occurrence and he replied that due to a shortage of class 313 units, the service had been DMU-worked for the previous three weeks. The last morning working of that day had just three passengers! In the afternoon the DMU was not to be seen and a chalked notice advised that the service was cancelled due to staff shortage and that a replacement bus service was running from the forecourt of the station. A two-car DMU of class 104 operated the service on 31.3.87, while on the next day a class 313 took over. However, DMUs returned on 2.4.87 and on 6.4.87 a class 108 set was used.

NF 71/87 - Having been disused for over a year and a half, it was noted that demolition of Croxley Green car sheds had commenced as at 12.4.87.

NF 72/87 - Further to NF 21/87 (UN 304) tests took place in March of a Docklands Light Railway articulated car running on a Light Rail demonstration line in Debdale Park, Manchester. DLR unit No.11, fitted with pantograph, was running on about a mile of line. The route was part of the old Manchester-Sheffield depot connection to Reddish depot, and most of the old overhead supports were used, with a few new ones around the temporary station (apparently to Hong Kong

design - the supports that is, not the station!). Power was supplied by a couple of class 303 cars which were parked near the junction with the Glossop line, with their transformers/rectifiers being used to convert the 25kV a.c. to approximately 750V d.c., which was fed to the demonstration overhead line. The DLR car was most impressive in performance, especially with regard to noise and ride, but a voltage drop at the far end meant that acceleration at that end was less impressive. The route actually passed the Reddish depot, which is now very badly van-dalised. Other small displays at Debdale Park included a section of Docklands third rail and a collector shoe. According to staff at the site the car had already travelled over 1,000 miles, and over 8,000 people had been carried at the two public weekends. The reactions had been very positive and it is to be hoped at the demonstration will lead to the approval of the Manchester Light Rail scheme. DLR car No.11 arrived at Poplar on 30.3.87.

NF 73/87 - A test train, being driven manually on the Docklands Light Railway, overshot the Island Gardens terminus on the evening of 10.3.87 and stopped suspended 17 feet above the road. The train (unit No.04) was being used by G.E.C. staff on commissioning tests. It was later hoisted back onto the track. The damaged end of unit 04 was returned to Germany for repair on 2.4.87.

Following the above accident, the following Press Statement has been published by the Managing Director of the Docklands Light Railway:

'The incident which occurred on 10 March 1987 when a light rail vehicle overran the buffers at Island Gardens station has now been fully investigated. GEC-Mowlem Railway Group, who are the contractors for the initial railway and who are currently commissioning the railway, have reported the circumstances to the Railway Inspectorate and to ourselves.

The investigation confirms that the prime reason for the incident was that certain unauthorised tests were carried out before required modifications to the train protection equipment had been installed at the location involved. Technical investigation carried out since the incident has shown that the train performed in a predictable manner in the circumstances then prevailing. The train would have been arrested had the full automatic protection system been installed in its final and modified form.

At the time of the incident the train was being driven manually. Once the railway opens trains will be driven fully automatically.

Tests subsequently carried out to the buffer stops indicate that they performed fully in accordance with the laid down design requirements.

The contractor has revised his commissioning procedures to exclude any tests other than those specifically authorised. Work continues on the commissioning and there is not expected to be any delay caused by this incident. A complete test of all automatic protection equipment in addition to individual system tests will be carried out before the railway is taken over for passenger service.'

NF 74/87 - The Metro-Cammell A-train and the

BREL B-train were on display to a party from the Institution of Mechanical Engineers at Neasden on Thursday 26 March 1987. Also on display was a works train with new battery locomotives L66 and L67, sandwiching a hopper wagon and a general purpose wagon. At the conclusion of the visit at 13.00 the party was transferred from the depot in a six-car 1983 stock train, which was going to Acton for OPO conversion (see Rolling Stock Alterations - page 111 - units 3614 and 3619). The following day (27.3.87) the C-train was undergoing brake testing on the South Ealing test track, including the use of the water spray equipment on the track. At the same time, 1983 stock unit 3605 was on the other test track, labelled as a test train and carrying test equipment. Later on that day the C-train was due to go to Neasden, bringing all three 1986 prototypes together for the first time.

NF 75/87 - The old signal box at Aldgate has recently been demolished, which was located just north of the station on the inner rail side, just before the tunnel entrance. Its old name-plate disappeared some time before demolition. The demolition of the old cabin is in connection with work to 'raft-over' the junction.

NF 76/87 - A new waiting area has been established on the Hammersmith & City platforms at Paddington (suburban), similar to the BR style.

NF 77/87 - The District Line entrance/exit and booking hall at Victoria was closed from Thursday evening 16.4.87 until Monday 20.4.87, in connection with asbestos removal from the ticket hall. Passengers requiring the way out from the District and Circle lines had to use the Victoria Line subways, platforms and escalators, which was specially signposted for the weekend.

NF 78/87 - An old pedestrian footbridge between Pinner and Northwood Hills on the Metropolitan Line was closed over Easter while it was replaced. The bridge links Hazeldene Drive and Starling Close and is mainly used by school children on weekdays. The closure - between 11 and 26 April - was timed to coincide with the Easter school holidays, to cause minimum inconvenience to users. Engineering staff worked daily on the bridge replacement and also operated during some early morning hours, including 11 and 18 April, when they removed the old bridge and installed the new structure. Train services were unaffected by the work.

79/87 - The opening of a second car park has provided an additional 122 parking spaces for passengers using Newbury Park station on the Central Line. The new car park is situated on the west side of the station, close to the new Sainsbury's Superstore approach road. Vehicle access, which has been clearly signposted, is from Eastern Avenue via the Sainsbury's approach road. Having parked their cars, passengers can reach the station via a staircase which leads to Eastern Avenue. The main car park on the east side of the station will remain fully operational, bringing the total number of parking spaces now available at Newbury Park to approximately 540. Both car parks are controlled by automatic barriers and the daily parking charge is 40p payable on exit.

NF 80/87 - On 20 January 1972 District Line Q23 driving motor car 4184 made its way by road from Ruislip depot back to its birthplace, the Gloucester Railway Carriage & Wagon works in Gloucester. It then stood outside the GRCW factory, even when GRCW's factory was taken over by Metropolitan main line, train operators have

Babcock Industrial and Electrical Products Ltd. in 1986. However, the car has now been donated to Gloucester City Council, whose intention is to open a transport museum in the future. Until then it is to be stored, moving on 12 March 1987 by road, by Mike Lawrence Low Loaders of Somerset, to Quedgeley.

NF 81/87 - Regular users of the Metropolitan Line may have realised that the 'Interchange' notices to guards at Finchley Road, Wembley Park and Harrow-on-the-Hill just 'disappeared' a couple or more years ago, in an attempt to improve timekeeping on the Metropolitan Line in the peaks, especially southbound in the morning. However, since OPO on the 'main line' (where Train Operators are unaware of an approaching Jubilee train if seated at their controls) and more latterly computerised signalling at Finch-ley Road (doing away with the 'human' touch to make connections !), the connections there between Metropolitan and Jubilee trains has become even more rare. LU have therefore taken steps to try and improve the situation, noted as follows:

Southbound Finchley Road -

A lamp with the letter 'J' on the lens has been installed beneath the southbound Metropolitan station starting signal. When a southbound Jubilee train approaching on the adjacent track, this will cause the 'J' sign to illuminate.

Northbound Finchley Road -

A 'wide-angle' camera has been installed on the Metropolitan platform, so that one of the CCTV monitors will display a view of the northbound Jubilee Line platform, so that the Train Operator can observe it is a Jubilee train arriving or is already present in the station.

NF 82/87 - From Sunday 29 March 1987, control of the Neasden signalling area (south) was transferred to the new Signalling Control Centre at Baker Street, but the signal box and some signalmen remain to control trains into and out of Neasden depot, for the time being. At the same time, the new crossover (No.28) linking the southbound Jubilee Line with the northbound Jubilee Line was commissioned, along with signals JM34 (SB Jubilee to NB Jubilee and Metro-politan), JM7 (NB Jubilee to SB Jubilee) and MM8 (NB Metropolitan to SB Jubilee).

From Sunday 12 April 1987, the signalbox at Wembley Park was closed and control of signalling transferred to Baker Street. Apart from Neasden North cabin (which does not control signals on the running lines), this makes the whole of the Jubilee Line signalling computercontrolled.

NF 83/87 - From Friday 27.3.87 the speed control on two signals on the southbound Jubilee Line between St. Johns Wood and Baker Street was removed, and permanent speed restrictions of 35 mph and, further south, 30 mph, now apply.

NF 84/87 - Further to NF 28/87 in UN 304, it can be confirmed that some tunnel segments from store at South Woodford were sold to BR, who intend to use them in their reconstruction of Liverpool Street station - presumably on subways, etc. Some others went to a private contractor, while others were put into store in Ruislip depot (could these be set aside for the Bank extension of the Docklands Light Railway ??).

NF 85/87 - Since the introduction of OPO on the

been issued with a combined control/position switch key, to avoid the need for them to carry around three metal keys whilst on duty. As usual, the new keys are made of metal, but as an experiment, about 20 keys made of tough plastic have been issued to certain train operators, to see if they (the keys!) stand up to wear and tear. These combined control/position switch keys have been given the nickname of 'Banana' keys, because of the bend in the main stem. Train operators therefore, now only need to carry a Reverser key and a 'Banana' key while on duty.

NF 86/87 - On 27.3.87 it was noted that a section of the northbound Victoria Line platform at Victoria (north end) had been fitted with the experimental signing referred to in UN 304, NF 38/87. By 3.4.87 most of the northbound platform had been re-signed at frieze level, the southbound a week later. Small sections of the original frieze remain on each platform, presumably for comparison purposes.

NF 87/87 - An attractive poster was displayed on the Underground from late-March, advertising the International Model Railway Exhibition (18-23 April). It continues with the theme 'Where Shall We Go?' and features a question mark shape in the form of model railway track, on which stands a three-car trains of 1983 Tube Stock. The 'dot' of the question mark is formed by the model railway power controller. Artists license was obviously used in this picture, as the windows in the end doors of each car of the train did not extend up into the roof - a feature common only to the driving cab side doors. Your reporter suggests that this is the first time that 1983 stock has been featured in LU advertising, previous tube train adverts featuring Piccadilly Line 1973 stock.

NF 88/87 - London Underground is preparing to spend £1 million on a range of new electronic vending machines to make jamming and lost money disappointments of the past. Travellers passing through Kings Cross ticket hall can now use a bank of trial machines to buy a wider range of the traditional confectionery fare - currently sold mainly on Underground platforms - plus fresh sandwiches and fruit, snacks like crisps and nuts, and chilled fruit juice and soft drinks. A similar trial was due to begin at Euston in late-April. If the trials are successful more of the new electronic snack bars will begin appearing at other Underground ticket halls from . August. New electronic machines are also planned to replace the existing 500 mechanical platform confectionery machines. LU is having prototype vandal-proof machines especially developed to ensure customers always get service - the pres-

ent 500 machines are prone to vandalism that can cause the mechanical internal parts to jam.

NF 89/87 - A new generation of self-service ticket machines for daily tickets on the Underground came into use in a pilot scheme at Hammersmith (Metropolitan) station on 20 April 1987. There are two easy-to-use machines. The first issues a range of ten popular tickets and gives change. A second machine sells tickets to every station on the Underground. Passengers can select the type of ticket they require and their destination or zone. The machine will display the fare to be paid. It will also sell off-peak tickets at the appropriate time and through tickets to a selection of BR stations. Change is given up to £5 notes. The new self-service machines are wall-mounted and serviced in safety from the rear. The new machines will enable passengers to buy tickets quickly before entering the Underground and without having to queue at the ticket office. Booking clerks also have new ticket issuing equipment, but will be able to concentrate on selling other types of tickets and dealing with enquiries. Every Underground station will have the new machines by the end of 1988 after the pilot operation at Hammersmith. The main installation programme will start in the summer. The new self-service machines will mean that passengers will be able to buy a larger range of tickets more quickly, cutting down the irritation of queueing. Later, the new machines, together with new methods of control and penalty fares, will make it easier to combat fraud.

TAIL PIECES

1

A Scottish magazine recalls that the Forth Bridge was opened on 4 March 1890, and that the chief engineer was Sir John Fowler, assisted by Sir Benjamin Baker, ".. on whose shoulders most of the work fell."

2

Observed in a Newspaper dated 1 APRIL 1987 -

'To cater for the growing number of commuters, double-deck trains are to be introduced on the Central Line. A prototype had been observed being tested on the open-air section between Epping and Ongar by a sharp-eyed local resident who wishes to remain anonymous. Work on enlarging the tunnels is expected to start next year.

Underground News is printed and published by the London Underground Railway Society. Contributions to this journal should be addressed to the Editor Underground News, 'Heidi', 13 Castleton Road, Eastcote, Ruislip, Middlesex, HA4 9QQ. When writing to any Society Officer, please quote your membership number on all communications, including applications for visits. Members requiring a reply to their correspondence are asked to enclose a stamped addressed envelope.

The last full list of Society Officers' addresses can be found on page 10 of UN 301 (January 1987), plus the amendments on page 55 of UN 303 (March 1987) and on page 110 of this issue.

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Changes of address should be notified to the Registrar, 12 Marlborough Road, Forest Gate, London, E7 8HB, and NOT to the Editor of this journal.

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