

UNDERGROUND NEWS

Second series

Number 192

THE TIMETABLE for period beginning  
12th April 1978

Wednesday 12 April

Afternoon visit to Jubilee Line Works, including walk through running tunnels. FULLY BOOKED.

Friday 14 April

A miscellany of home and overseas electric railway and tramway slides, by Mr.E.Treby. 1900 for 1915 at Hammersmith Town Hall.

Saturday 6 May

The Society will be operating its Sales Stand at the Transport Enthusiasts' Bazaar, Islington Town Hall, Upper Street, N.1. 1030-1430.

Sunday 7 May

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

Friday 12 May

Talk by Mr. Piers Connor. The Development of Train Equipment on London's Underground, 1900-1938. 1900 for 1915 at Hammersmith Town Hall.

Saturday 20 May

Morning visit to Neasden depot. Restricted numbers. Applications, with SAE to Mr.G.A.Finch, 161 Valetta Road, London W3 7TA.

Tuesday 6 June

Library evening, 1830. Other details as for 7 May.

Friday 9 June

Talk by Mr.D.G.Jobling, Design and Construction Engineer (Civil Engineering) London Transport, on L.T. Railway Bridges. 1900 for 1915 at Hammersmith Town Hall.

Night of Friday 9th June/Saturday 10th June

All night visit to Permanent Way night work. Restricted numbers. Applications, with SAE to Mr.G.A.Finch, 161 Valetta Road, London W3 7TA.

Thursday 6 July

Morning visit to Parsons Green Works and Building depot. Restricted numbers. Applications, with SAE to Mr.G.A.Finch, 161 Valetta Road, London W3 7TA.

Friday 14 July

Talk by Mr.P.Cassell. Vegetation Control on London Transport. 1900 for 1915 at Hammersmith Town Hall.

Friday 11 August

Talk by Mr.F.G.Rutty, Traction Engineer, London Transport. Train performance and Testing on London Transport. 1900 for 1915 at Hammersmith Town Hall.

Published 12 times a year by the London Underground Railway Society.  
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## HEATHROW COMPUTER

The opening of the Heathrow Extension brought a new facet of train movement control onto the Underground scene - that of Computer-controlled train routeing.

Early in the planning stages of Heathrow it was decided to employ computers there in place of the programme machines currently in use at many existing remote interlockings. With the programme machine system, the Signaller is replaced by a machine, which is both bulky and costly. Each machine controls only a section of any given site, and hence several machines are usually necessary per site, with their associated mass of back-up circuitry provided in order to make the 'non-safety' and 'safety' sides of the system compatible. Additionally, the punched plastic rolls which are used in the programme machines for carrying the timetable information are costly and time consuming to produce. With all the above in mind, a suitably configured digital computer is obviously desirable in as much as it can replace large amounts of other equipment.

The likely costs having been calculated, and the theoretical work having been done, an experiment in computer control of the railway was set up at Watford (Met) 4 years ago to determine the feasibility of computer control not only for Heathrow, but also for the whole of London's Underground at some stage in time. The experiment also gave LT engineers valuable experience in installing and maintaining what was then a completely new concept for somewhat conservative Signal Engineers.

The Watford experiment was an unqualified success, not only in its results but also in as much as it was underspent on its allocated budget. Hence the scene was set for Heathrow.

The system employed at Heathrow has been designed to appear to the Regulator to be a standard 3-programme machine site; all his controls refer to 3-fictitious programme machines and the site behaves as if they actually exist. Hence the Regulator's controls for Heathrow are comparable with those of other programme machine sites, and the need to re-train Regulators to operate Heathrow is obviated.

On site, all the normal safety signalling standard to LT practice exists, with the Interlocking Machine being retrained as the Safety/Non-safety interface. Economics have been borne in mind with the computers themselves; although two computers are used (one operational and one stand by), one of the two is the Watford computer re-used; additionally much of the back-up circuits associated with programme machines are not necessary with the computer system.

Although computers have been used elsewhere for the control of railway signalling, this application is undoubtedly a major breakthrough for LT, whose own engineers have been responsible for a major part of the design work and programming. Since Heathrow is a relatively simple site to control (a 2-platform terminus), it is likely that it has been chosen as a foundation on which to build and from which experience can be drawn. The grounding is good, and there can be little doubt, that computers have an important part to play in the future of the control of signalling on the Underground.

(A more technical article on the Heathrow Computer is planned for a future issue of UN).

### LONDON'S DEEPEST FIRE RISK: THE TUBE

An ever present hazard exists on the tube system and that hazard is fire.

Controlled, it gives us heat and light. Uncontrolled it is a killer; a destroyer of almost anything in its path, a destructive chemical phenomenon destined to strike anywhere it is allowed to, at anytime!

In the subterranean world, we have to be extra wary, always. Fires occurring at street level and above are less of a risk than down below, for up above the hot toxic gases and visibility obscuring smoke can be vented into the atmosphere surrounding the fireground far easier and more rapidly than can ever hope to be achieved under ground. Down below fire enters into its own; to coin a phrase, it can have a field day!

Underground, a fire can, if allowed, become an exterminating force. A fire on board a train is a potential mass killer. Vertical flame travel can only be achieved to a certain point, the tunnel roof. It can then only travel horizontally and as experiments carried out by the Fire Research Station have shown, horizontal flame travel in a tunnel is seven times greater than vertical flame travel e.g. from a severe fire on board a bus at street level.

The reason for this is quite obvious; the gases being produced are in fact the flames; the peak of the flames being the point where the majority of combustible gases are all used up. Immediately under the tunnel roof a ceiling of gases are formed which, when coupled with the tremendous heat output, which is partly due to the close proximity of the tunnel walls creating instant thermal feedback with minimum heat loss, will travel many metres in advance of the train.

This flame travel will radiate heat at temperatures in excess of 1000 degrees centigrade. Any fan in the vicinity of the fire drawing off these hot toxic products of combustion will eventually breakdown due to the high temperatures. Therefore the present tunnel ventilation plant employed in the tube sections are virtually useless to cope with any major fire or smouldering.

### Smoke Generation

Smoke can be summarised as burnt particles of carbonaceous materials together with tar distillates which are minute but visible. These particles will travel with the uncombustible but highly toxic gases well in advance of the flame peak obscuring vision, choking, poisoning and asphyxiating anyone unfortunate enough to fall victim. To put it bluntly, a train on fire, and I mean a real fire, not electrical fusing, will have a heat output of some 25 MW.

Passenger detrainment will have to be carried out very rapidly and ideally to the rear of the train if at all possible, depending on the location of the burning car or cars, to avoid mass slaughter. Smoke and gas spread is at one metre per second and due to the present ventilation system will be almost entirely in advance of the train. Anyone detraining in advance will be burnt to death by the heat radiation before they have covered fifty metres.

### Electrical Fusing

Fusing is dangerous in its own right, but in all cases known to myself, the results have been minimal loss of life and property. This is due to current being discharged before the fusing turns into a general fire. Plainly, fusing is an ignition source.

There are many other sources of ignition, and trains left unswept and littered with rubbish and poorly maintained and fitted with highly combustible materials such as polyurethane foam seating, can only enhance these ignition sources to their fullest.

I am not impressed with the way in which the Holland Park train fire (electrical fusing) July 28 1958 and the recent Finsbury Park station fire (electrical fusing) were handled. The problems of smoke generation in a tunnel were clearly exemplified by these incidents.

### Summary

The many risks in the tube sections are quite obvious, in fact so obvious I thought something would have been done about them by now!

Rapid flame and smoke spread: Hot toxic gases: Very high temperature output: Near to useless ventilation system. It all adds up to fatalities, these are only a few of the severest hazards, in the next few articles I will be highlighting many more and describe the ways of combating them. Maybe, then London can boast the safest rapid transit system in the world!

## 1973 STOCK NO-SMOKING LABELS

As most followers of 1973 Tube Stock will know, a number of different types of 'No-Smoking' labels have been applied to the Driving Motor cars and Uncoupling Non-Driving Motor cars:

- |  |  |
|--|--|
| Units 100 to 156                             | Blue bar with white lettering (all of these have now had red half discs fitted above and below.) |
| Units 157 to 177<br>180 to 197               | White disc with red lettering.   |
| Units 198 to 201<br>204 to 253<br>854 to 894 | Red disc with white lettering.   |
| Units 178 & 179<br>202 & 203                 | Were delivered with blue bar and red half discs.   |

However, a number of exceptions now exist due to some windows becoming broken and replaced by the blue bar type, these being the only spare type available.

The list of exceptions below are observations over a period of the last 18 months and is not necessarily complete, and the circumstances of some of these listed cars may now have altered. The numbers quoted are car numbers and not unit numbers.

### Blue Bar only

DMs 104	170
118	178
139	199 (plus one window blank, see below)
141	
153 (plus one window blank, see below.)	223
158	225
	859
(UNDMs 305	355
307	357
308	376
318	381
323	410
345	444

### Labels missing completely

DMs 153 (see above)
199 (see above)
UNDM 303

Further information and observations from members would be welcome, so maybe at a later date we can provide a larger and more complete list. Details please to the ASSISTANT EDITOR.

## REVIEWS

### Modern Railways, January, 1978

This issue carries an article on a paper read to the Institution of Mechanical Engineers on the subject of Drivers' Cab Design. LT stock seems to come out well in the eyes of the authors, who probably have little experience in the special problems associated with Underground Stock cab design. They do, however, feel strongly that cab controls should be 'miniaturised', a feeling not shared by LT officers commenting in the question time.

Mr. W.W. Maxwell himself makes a comment on complaints from drivers over draughts, which is fairly indicative of the attitude LT design staff have with regard to the conditions in which they expect train crews to work.

### LT Rolling Stock Scale Drawings

A new set of drawings has just arrived on the market which will no doubt prove a boon to all those interested (even if not actively) in modelling LT stock; the Society is fortunate in being the only outlet for these at the present time.

Drawn to 4mm scale (one must allow for minor fluctuations due to the reproduction process, typically  $\pm 1\text{mm}$  in every 300mm) by our member Piers Connor, each 'set' of drawings for each stock comprises 3 sheets:- one for each type of body shell, plus one for car-ends, equipment layout and train formation. The exceptions are 'R' stock, for which 4 drawings make up the set, due to the additional body shells used on that stock and 1960 TS., for which only one drawing is available. To date, CO/CP, R, C69, A60 and 1938/59/62/60/67/72/73 tube stocks are catered for, but we are told that others are to follow.

The standard of drawings is generally very good, although some of the car-end views (especially 1938 tube stock) are rather suspect. Bearing that in mind, a comprehensive set of photographs is undoubtedly a necessity if one decides to build models from these drawings; in fairness, though, I have never seen (or built) a model representative of the original which has not had its construction aided by photographs.

In comparison with the 'Skinley' drawings these drawings are quite reasonably priced - 50p per stock-set ('R' stock 65p) with an index sheet to abbreviations included in the price. A special price of £3.50 for all the above mentioned stock is available to society members.

All drawings are available from the Society's Postal Sales Officer at 21 Chestnut Grove, South Ealing, London W5 4JT.

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## LETTERS TO THE EDITOR

Sir,

I refer to your item GLC Showdown in UN 187 wherein you say that your sources are a GLC Press Release and a 'well founded rumour'. It is a pity that you attached so much weight to the Press Release because, as is the way with press releases, it gives a totally distorted view of the item in question. In this case an inaccurate view. As I am familiar with his actual paper I hope you will allow me to show a glimpse of the other side of the coin.

In fact, one-man operation for buses was not mentioned in Mr. Mote's paper as ranking PARTICULARLY high, although he does say in passing that 'OMO should be the norm rather than the exception' - he also draws attention to passenger boarding times - the main (but not the only) enemy of OMO. In fact, Mr. Mote is nothing like as militant as you suggest - granted his paper is not perfect, but then the final draft has not yet been published. His aims are almost mundanely reasonable. For example may I quote four of his MAIN objectives in the bus area (under-lining mine):

- (a) unnecessary competition with rail services shall be avoided.
- (b) unduly long and unmanagable bus routes shall be kept to a minimum
- (c) bus services to railway stations shall, as far as practical be co-ordinated with rail services at these stations.
- (d) local bus links to centres of passenger attraction shall be strengthened

I don't think there is anything particularly unreasonable in the above - all along the line Mr Mote is pressing for, above all, reliability.

On the railway side Mr. Mote is generally pleased with existing Underground services and point out that if just a little extra traffic were generated it could easily pay its way. He also says 'the Council does not contemplate any significant reduction or withdrawal of Underground services in order to save money. Such an action would be ill-conceived, unpopular and out of keeping with its transport strategy..! He does say that the Executive should 'submit proposals for a modification of those underground services where the value for money of retaining them in their present form falls below a standard to be set by the Council'. Then again Mr. Mote has been quoted as saying (categorically) that he has NEVER committed himself to closure of any underground station, per se, other than Edgware Road (Bakerloo).

On the subject of staffing Mr Mote (though he did not actually say so in his paper) is determined that staff would be lost over 5 years purely as a result of wastage and NOT by means of redundancy - most of the ensuing panic within LT appears to result from the good (but not wholly representative) airing the matter received in London evening papers. The GLC may of course be naive in their views. They know they gave LT a great deal of money for LT's 9-point plan a few years ago - to make the job more attractive to their employees. They hoped for an increase in productivity as a result - but productivity continued to decline. Perhaps the GLC think the only way to increase productivity (running more buses and trains at less cost) is to force LT to continue running the same or improved services whilst staff leave. It is not for the GLC to talk to the Unions, London Transport are the employers. Full details of the paper will be given in a future copy of our magazine 'London Passenger Transport'.

Yours faithfully,

T. J. MacLaren

London. 6th January 1978.

Sir,

The article in your issue No.190 on the move of the London Transport Collection to Covent Garden states that the Collection will be housed in the Floral Hall. This is not so. It will be in the former Flower Market which is an entirely different building albeit in the same area. It is the floor of this building which needs strengthening, not the Covered Way as your article states.

The museum will have more exhibits and incorporate a reference library and offices for resident staff, so it will certainly play its part in preservation and as a true museum, though we very much hope that it will attract children, too. A museum that must pay its way must do its best to be all things to all men, impossible though that may be. For the same reason, it must retain a reasonable balance in its displays, with the weight given to those things likely to be of interest to most people. From the start of planning, we have had a 'Relics Counter' in mind.

The writer of the article has probably not visited Syon Park for some time, in that quite a number of photographs showing the development of Underground rolling stock were added a year or so ago (and extra bus photographs). There are destination boards not only on the Q23 stock but on the steam locomotive No.23 and 'John Hampden'. Destination boards will be fitted to other appropriate vehicles as they are added.



Items sold on Gala Days are surplus to the Collection's requirements. Like most museums the Collection has not the space to display everything that it owns, nor has it the specialised facilities needed for the display and protection of some items. It is hoped that the new museum will gradually be improved over the years as funds become available, following the policy already adopted for the Collection and plainly apparent to regular visitors.

London Transport is of course well aware of the historic character of Covent Garden Station. What can be done to relate it to the nearby museum is now being studied.

Yours faithfully,

J.R. Day  
MANAGER, LT Collection.  
February 1978

#### NEWSFLASHES

CORRECTION to NF 1926 in UN 191.:

should read ' C77 stock trailer cars 6701-6705 and....'

- NF 1935 Northern Line Sleet Loco ESL10<sup>4</sup> was transferred from Golders Green to Highgate on 6.2.78 and has been used at night on the Barnet branch when conditions warrant it. Similarly ESL106 has been used on the Edgware branch.
- NF 1936 Several 1938 stock trains on the Bakerloo Line have been running recently with the three and four car portions interposed due to defective middle motor cars. Since 1938 stock has only been equipped with 'Storno' radio equipment at its normal 'outer ends', it is not uncommon for this equipment to be available only in the middle cabs, where it is of no use. Trains so far noted like this are 10236 + 11205 on 20.2.78 and 10172 + 11275 on 1.3.78.
- NF 1937 Recent 1938 stocks to Neasden for scrap from the Northern Line are 10165 + 10166 units (19.2.78), 10247 + 10224 (23.2.78), 10252 + 10217 (3.3.78) and 10233 + 10228 (10.3.78). This leaves only 2½ trains on the Northern Line for service, being 10203, 10235 (3-car units) and 10170, 10182, 10230 (4-car units). 10166 unit subsequently travelled to Ealing Common on 19.2.78 to join 10150 unit; these two travelling to Upminster on 28.2.78 for further sand-drag tests.

- NF 1938 C77 stock units 5710 + 5711 + 5713 were transferred from Ruislip to Hammersmith on 22.2.78, and similarly on 9.3.78 units 5714 + 5715 + 5716.
- NF 1939 C77 stock units 5702 + 5703 + 5704 have been returned to Ruislip for further work to be carried out. They were joined on 8.3.78 by units 5701 + 5705 + 5706.
- NF 1940 C77 stock deliveries have now reached 5718 + 5719 (20.2.78) the first for two months, and units 5720 + 5721 + 5722 + 5723 (27.2.78).
- NF 1941 CO/CP cars 53044 - 54230 + 53037 - 54051 were transferred between CO/CP stock pilot cars from Ealing Common to Ruislip for scrapping on 15.2.78.
- NF 1942 The first 'rusty-rail' working to Northwood siding took place on 22.2.78, although the move had been booked in the new timetable which commenced on 12.12.77. The siding previously electrically-isolated, was energised permanently from 20.2.78.
- NF 1943 The temporary reversing of one train (one train running 5 trips between Queens Park and Stonebridge Park empty during the midday off-peak) for crew training (which commenced on 13.12.77) ceased after 24.2.78. From Monday 27.2.78, crew training between Queens Park, Watford Junction and Croxley Green depot commenced, two round trips in the Monday to Friday midday off-peak period being scheduled.
- NF 1944 Re-NF 1893, the 3-car E.D.O. unit will not be overhauled during its stay at Acton Works; it is solely there for re-conversion to air-door operation. It was recently joined at Acton by the 4-car E.D.O. unit (1020 - 2020 - 9021 - 1021).
- NF 1945 1959 stock unit 1146 was returned from Golders Green to Northfields on 7.2.78 for a suspension modification to be carried out. The unit returned on 17.2.78.
- NF 1946 A Plasser Tamping Machine broke down early on 26.1.78 at West Acton, supposedly due to a lack of fuel. Some diesel oil was sent for, but due to some confusion (which is likely to occur again until LT stop putting de-icing fluid in the same coloured drums as diesel oil!) the Central Line service to Ealing Broadway was disrupted until 08.30.
- NF 1947 One of the Neasden Breakdown Lorries broke down on the North Circular Road after attending to a train at Arnos Grove with a seized motor on 19.1.78. The Riverside (Hammersmith) bus garage emergency vehicle was called out to assist.

- NF 1948 A 'drunk' at Heathrow Central station on 7.2.78 who produced a gun when confronted by a Policeman and the Station Manager, was dealt with by the aforesaid Policeman before he had chance to use his weapon. The offender was subsequently escorted to the station's Police Station.
- NF 1949 The ASLE & F and TSSA diaries for 1978 both show the FLEET line as open, and the Heathrow extension as 'due to open early 1978' !!
- NF 1950 'GPO' type telephone kiosks (similar to the types already at South Kensington (District) and Neasden have recently been installed at Acton Town and Hammersmith (westbound). These are likely to house public address and LT private telephone equipment
- NF 1951 Due to adverse weather conditions on 21.2.78, none of the through Bakerloo Line trains to and from Watford ran in either direction in either peak.
- NF 1952 A member of LT staff was struck and killed by a 1973 stock car (no. 147) at Stamford Brook on 21.2.78. As a result of the consequential service disruption, a stock transfer to the Northern Line (L130 - 3412 - L131) was diverted to Cockfosters depot where it remained until 2.3.78, when it was transferred back to the Northern Line via Barons Court siding and Kings Cross.
- NF 1953 Two railway vehicles of interest are to become exhibits at the National Railway Museum, York. They are ex Greater Glasgow Subway trailer car No. 7 and ex L.N.W.R. 'Oerlikon' motor coach M 28249M, which used to run between Euston/Broad Street and Watford/Richmond.
- NF 1954 A further three 7-car trains of 1938 tube stock are to be Extra Heavy Overhauled (pending cash approval). Four known units so far set aside for this purpose are 10250, 10106, 10134 (4-cars) and 10168 (3-cars) A further two 3-car units have yet to be selected.
- NF 1955 On Friday 30th December 1977, it was found that there was no suitable 3-car 1959 tube stock unit available for the service on the Holborn to Aldwych shuttle service. (Not all 3-car units have two compressors which is a requirement when running as a single unit). As a result, 1973 tube stock double cab unit 856 - 656 - 857 was sent instead - the first time that 1973 stock had ventured onto the branch. During the first round trip, the crew felt that the train was rather too close to the tunnel, and so went cautiously. They made a second round trip without passengers to confirm their observations and then refused to run the service. By about 09.45, quite a gathering had

accumulated at Holborn; staff from Northfields depot, Design Division from Acton, Civil Engineer's department etc.; and an impromptu gauging clearance run performed. Although clearances were tight, there were no points at which clearance was less than predicted during previous gauging runs with the gauging car.

It was found however that due to the extra length of 1973 tube stock, it was extremely difficult to fit the whole 3-car unit into Aldwych platform, the new stopping mark and stop lights fitted after the Moorgate incident having been fitted some way down the platform. It was agreed that this would be altered by about 5.1.78, but in the meantime 1973 stock would not operate on the branch. The 1973 tube stock was thus taken back to Northfields and a 1959 tube stock, which by this time was now available, substituted for the evening service.

- NF 1956 With reference to NF 1922, Metropolitan Line A stock de-icing trailers and both Northern and Bakerloo 1972 Mk.II stock de-icing trailers are also having the letter 'D' applied under the car number. Cars noted so far are: 6090, 6096, 6098, 6104, 6112, 6116. (A stock) 4357, 4358, 4361 (1972 Mk.II Stock, Bakerloo Line.) 4354 (1972 Mk.II Stock, Northern Line.)
- NF 1957 1972 Mk.II stock DM car 3245 on the Bakerloo Line has one ordinary type of No-Smoking label, whilst 1972 Mk.I stock DM car 3213 on the Northern Line has one blue bar.
- NF 1958 1956 Prototype DM cars 1000 (Metro-Cammell) and 1004 (Birmingham) were noted in service on 6.3.78 still without stabling lights fitted.
- NF 1959 The 1967 Victoria Line stock 4-car unit allocated to the Central Line for the Hainault/Woodford shuttle was changed over on 5.2.78. 3070 unit returned to the Victoria Line and 3067 unit took its place.
- NF 1960 1960 stock DM cars 3906, 3907, 3910 and 3911 out of service in White City depot for blue asbestos de-contamination have been moved from outside storage into the old lifting shop for attention. 3908 - (4929) - 3909 are still stored in the open.
- NF 1961 With reference to NF 1896, 1972 Mk.II stock remaining on the Northern Line for the time being are being fitted with hand grab-rails and step plates, and are returning to service thereon. Cars so far treated are: 3231, 3232, 3238, 3239, 3242, 3246, 3254, 3260, 3263, 3363 (the only 33xx car to be fitted) 3540, 3541, 3545, 3548, 3551, 3556 and 3560. The remaining 1972 Mk.II stock trains will be transferred to the Bakerloo Line later in the year.

- NF 1962 The train describers at Harrow-on the-Hill platforms 3 & 4 have had facilities to display 'PLATFORM 1 FOR TRAIN TO MOOR PARK AND STATIONS TO AYLESBURY' switched on manually from the signal cabin when a down LMR DMU to Aylesbury is due. This has recently been altered to read 'PLATFORM 1 FOR TRAIN TO AMERSHAM AND STATIONS TO AYLESBURY'. Presumably it has been altered to avoid confusion with 'PLATFORM 1 FOR TRAIN TO MOOR PARK...' because northbound or down DMUs do not stop at Moor Park and Rickmansworth in the evening peak.
- NF 1963 A delay of 26 minutes occurred on the southbound Metropolitan Line at 21.54 hrs on 7.3.78 when a train was struck by an unknown object between Dollis Hill and Willesden Green, shattering the healight glass. A search of the immediate area found nothing. During the delay, one Met train was detrained in Neasden southbound Met. platform and passengers continued their journey by Bakerloo train. The empty train was reversed back into Neasden depot to re-enter service at Wembley Park northbound. One Met. train was diverted over the Bakerloo Line from Neasden, and one other reversed south to north at Wembley Park via Neasden depot.
- NF 1964 The 1938 tube stock trailer 012331 converted to run with 1960 stock DMs 3910 and 3911 (at present at White City depot - NF 1960 refers) has been painted in service stock livery and numbered TRC 912. 3910 and 3911 are to be renumbered TRC 910 and TRC 911 respectively.
- NF 1965 Ex. Metropolitan Electric Locomotive No.12 'Sarah Siddons' was transferred to Upminster depot on 27.2.78 for further sand drag tests.
- MF 1966 1938 tube stock 4-car unit 10208 entered Acton for ordinary overhaul on 1.2.78. This unit is in train red livery, but has white LT roundels and car numbers, this being the first train to be overhauled with roundels. The only Bakerloo Line EHO 1938 stock remaining in train red livery with gold car numbers and LT transfers are 10207 (3-car) and 10186, 10214 (4-cars). With the exception of units 10197, 10211, 10258, 10261, 10318 (3-cars) and 10162, 10178, 10216 and 10242 (4-cars) which are in train red with white roundels and car numbers, all other units are in 'bus red'.
- NF 1967 Wembley Park siding (Bakerloo Line) has been lengthened to provide an over-run beyond the stop lights. It is still however not long enough to accommodate an eight-car A stock train

NF 1968 An unusual working on the Metropolitan Line, introduced into the latest timetable from 12.12.77 is the 18.24 hrs departure from Barking, which goes through to Wembley Park in passenger service. As the crews change at Baker Street it is usually labelled up as 'Baker Street' until that station is reached.

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Members are again reminded that, as a temporary measure, all items for UNDERGROUND NEWS should be sent to the ASSISTANT EDITOR at  
13 Castleton Road, Eastcote, Ruislip, Middlesex, HA4 9QQ.

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ROLLING STOCK QUERIES

If any member can assist with providing information about the following, would they please write to the ASSISTANT EDITOR at the address quoted above.

1. The cars used during the war as Tube Refreshment Specials, especially car numbers and formations etc.
2. During 1936, three 'steam stock' compartment coaches were repainted in various trial liveries which were not adopted. The liveries were olive green, Underground red and light green with a red waistband. The car numbers and how long the experiment lasted is required. (This is a repeat of the same query in UN 189.)
3. About 1943, three cars took part in experiments with the display of line diagrams inside 1938 tube stock cars. One was in the form of maps along the length of the car roof in a 'V' shape. The second was a map encased in a metal frame extending up beyond the adverts with an LT bullseye at the top middle containing the name of the line. The third was the type that is now in use today; i.e. located immediately above the cantrail above the car windows and below the adverts. (It must be remembered that when the 1938 stock first entered service, the adverts were immediately above the car windows and the maps above those.) The three cars numbers are required here, and whether they entered service in this form. (From official LT photographs seen at Griffith House, Edgware Road, it appears that the car windows are whitewashed and out of service.)
4. Plans were made after the war to adapt four trains with outside door indicator lights. It is known that an 8-car Q23/38 stock and a 7-car train of 1938 tube stock was so fitted. It was also planned to do the same to a Piccadilly Line 7-car Pre-1938 tube stock train and a Metropolitan Line 8-car P stock train. Can anyone confirm that the last two were converted and if so, the car numbers ?