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WATERLOO AND CITY LOCO STAYS IN LONDON

A year or so ago a member of the Society enquired of a Committee member whether the Waterloo and City electric shunting locomotive was to be preserved and exhibited in London. At that time the loco, used for very many years in the W&C's underground depot at Waterloo, had been withdrawn from service and put into store by British Rail at Preston Park; it had also been on display recently at a BR celebration at Brighton, where the Society's enquirer had seen it and was thus moved to raise the question of its future.

Correspondence elicited the information that the loco was part of the national collection and would be going to York with the rest of BR's relics, to be put on display in the National Railway Museum now under construction there.

As soon as the Committee learnt of this, a very strong protest was made to the Curator of Historical Relics, British Railways Board, on the grounds that the locomotive was essentially a part of London's railway history, was not in any way typical of the development of railways in Britain, and was not therefore a vital exhibit in the national collection, and being something of a London oddity should be kept in the capital.

The Society's complaint was sympathetically received by the Curator, who supported the request for the loco to remain in London, and passed the matter to the Science Museum which will be responsible for the national collection once it has been moved to York. The Museum was equally co-operative, and it can now be reported that the decision to send the locomotive to York has been reversed, and that it has been moved from Preston Park to the new Science Museum store at Hayes, Middlesex, where it is being kept pending a suitable exhibition site being found for it in London.

Naturally the Society is pleased to know that its action has resulted in the retention of this interesting electric locomotive in London, and is grateful to the following who were responsible for changing the official decision to the advantage of the capital:

Mr John H.Scholes - Curator of Historical Relics, British Railways Board Mr G.W.B.Lacey - Keeper of Land and Transport, Science Museum Miss Margaret Weston - Director, Science Museum

Our thanks go to them, and it is hoped to publish shortly in this Journal, a short history of the locomotive.

DEATH OF L.T.C.ROLT

The death occurred on Thursday 9th May 1974 of L.T.C.Rolt, at the age of 64.

One of the best known of contemporary transport historians, Rolt was a member of the York Railway Museum Committee and of the Science Museum Advisory Council, and he was also Vice-President of the Newcomen Society - and had just been made President of the newlyestablished Association for Industrial Archaeology - a field in which he was taking an ever-increasing interest at the time of his death.

Born in Chester in 1910, he was always interested in things mechanical and served an engineering apprenticeship which in due time served him very well because of the wide scope his work covered during his service - but it was the transport aspects of his career which captured his interest and led him eventually to devoting his time to writing about its history, and a great number of ancillary activities. The breadth of his involvement in transport was enormous, including as it did traction engines and steam lorries, the earliest of diesel lorries, canals and canal boats (he was a founder of the Inland Waterways Association), railways - in particular narrow-guage ones (he was a prime mover in the restoration of the Talyllyn) and vintage cars.

As an author he will probably be best remembered for his biographies of famous engineers, in particular that of Brunel which stands out among the many devoted to this subject as one of the very best.

It is ironic that he should have died in the same week as a Bill for authors' public lending right was announced - a cause for which he had fought for years.

A PILOT COMPUTER-CONTROL SCHEME ON THE MET

London Transport announced in February that examination is taking place on the possibilities of using computers to replace programme machines in Underground signalling and, at the same time, to provide information for visual display units which could supersede conventional illuminated track diagrams in regulating rooms.

A small computer installation at Watford station on the Metropolitan Line has been used experimentally to control the signalling in place of programme machines at this terminus, and has now been linked to a coloured visual display unit in the signal cabin at Rickmansworth, from which the Watford signalling is controlled. The combined installation is being given extended field trials to obtain experience of the new equipment and to enable engineers to assess its reliability.

This experimental installation provides all the operating facilities given by the existing equipment and has several advantages. The computer, with its electronic circuitry, needs little maintenance compared with a programme machine, and one computer could replace a whole series of programme machines. The visual display unit associated with the computer can provide a more simple and, therefore, clearer coloured picture than existing types of diagram, and it also occupies less space than conventional track diagrams. Moreover, the signalman can select, by means of switches, the type of information displayed by the unit, so that he is not presented unnecessarily with details that are only required in certain circumstances.

Since 1958, the signalling at Watford has been controlled by a pair of programme machines installed in the interlocking machine room at the station. These machines contain the day's timetable in coded form and automatically control the points and signals at the station through the safety signalling system in accordance with the timetable and movement of the trains. Apart from the usual train arrivals and departures, normal train movements at Watford include shunting between platforms and sidings and the coupling and uncoupling of trains before and after peak hours. All these movements are set up automatically at the appropriate time by the programme machines without intervention by a signalman.

Supervision of the Watford signalling is carried out by the signalman at Rickmansworth in a conventional signal cabin - almost three miles away on the Metropolitan main line - which contains a power lever frame and push-buttons for operating the points and signals locally at Rickmansworth and at the triangular junction between the main line and the Watford branch. The signalman is also provided with push-buttons and switches so that he can supervise the Watford signalling and change to a form of automatic first-comefirst-served, reversing or push-button control should the need arise. The introduction of the computer at Watford has not altered these controls in any way.

The new equipment at Watford consists of a Hewlett Packard 2100A computer with 12K core store and paper tape reader, and an interface supplied to London Transport specifications by the Westinghouse Brake and Signal Co. Limited. These, together with an associated DC power unit are installed in a single cabinet measuring 1980mm (78in) high, by 600mm (24in) wide by 540mm (21in) deep.

An associated teleprinter is installed alongside to provide a print-out of all variations made by the signalman to the programmed timetable and to indicate any malfunctioning of the interfacing system; this will assist in rapid fault-finding by maintenance staff. The teleprinter is equipped with a standard keyboard so that the computer may be interrogated to establish, for example, that a new timetable fed into the computer is being interpreted correctly.

At Rickmansworth, the vdu is a form of standard 22in colour TV monitor screen with the addition of 8 on/off selector switches to enable the signalman to vary the information that he wishes to be In the basic permanent display, unoccupied tracks are displayed. shown in pale blue, occupied tracks in bright red and fixtures, such as platforms, in yellow, all on a bright green background. The only signals shown are those relating to trains occupying tracks, a rectangle denoting running signals and an 'S' shunt signals. When a route is set up, either by the computer or manual control, that route - including points and crossings - is shown as a continuous pale blue line and the relevant signals are denoted repeating the actual aspect of the signals. As a train moves through the route and occupies successive track sections the appropriate sections on the display change to red and then back to blue; finally, the route returns to normal giving indications of the position of points and crossings.

The overall picture presented to the signalman is much clearer and the information provided is more concise than has been possible with the conventional illuminated track diagrams. The actual time, given by the computer, is the only other information provided by the permanent display. However, the signalman can add to the information, should the need arise, by means of selector switches. Four of these enable signal numbers, point numbers, track designations and train destination codes respectively to be added, in the correct position, to the diagram. Two more switches enable the signalman to cancel the programme storage of the train whose number has been displayed in platform 1 or 2 in the event of out-of-course running.

The two remaining switches control the display of the next programmed train arrival and departure respectively; this information is shown below the main diagram and includes the train number, arrival or departure platform, train description and scheduled arrival or departure time. In practice, these details are useful and therefore they are normally included as part of the standard display. Except in unusual circumstances, the signalman has no need to concern himself with details such as signal numbers.

The coloured visual display unit was supplied by Prowest Electronics Limited and the selector switches by the Westinghouse Brake and Signal Co. Limited, who also supplied an electronic drive unit, which is installed in the relay room below the signal cabin.

Installation of both the computer and the visual display unit was carried out jointly by the Westinghouse Brake and Signal Co.Limited and London Transport staff, to the requirements of London Transport's Chief Signal Engineer, Mr H.W.Hadaway, OBE, C.Eng, FIEE, FIRSE.

If the experiments are a success, and the savings in space and maintenance costs are realised in operation of this pilot scheme, it is obvious that London Transport will extend the use of the system, thereby taking the first steps to a fully computerised operation of the Underground system as a whole.

CHANNEL TUNNEL LONDON TERMINAL A.W.T. Daniel

1. There is little doubt that the Channel Tunnel has suffered in public esteem by being treated as a link between Folkestone and Calais, thereby being merely an alternative to the conventional means of sea transport. This is a great pity, as the supreme advantage of the Tunnel lies in the possibilities that it offers of through, fast, services between, not only London, Paris and Erussels, but between places such as Manchester, Glasgow, Zurich, Rome and so on. It would serve transport in the same way as the great Alpine tunnels such as the St Gotthard, which was built to provide through running between Paris and Rome, and there is no question of de-training and en-training at each portal of the Tunnel.

2. It was therefore a welcome step in forward thinking when, in November 1972, the Greater London Council published "Channel Tunnel London Passenger Terminal", a document for consultation. It listed eleven possible sites, giving a statistical summary of each, with maps, and asked for written comments by January 13th 1973. In this document it reduced the eleven sites to a short list of three, namely Surrey Docks, Victoria, and White City, and expressed a preference for the first named, for reasons which would be important to a Local Authority, with its duties towards its citizens over matters such as housing, health and amenities.

3, The National Council on Inland Transport (NCIT) was one of the bodies which replied by the required date, and expressed its preference for White City, for reasons now to be explained. But it went further than mere comment, and put forward its own scheme on the grounds that it believed that a better site than White City was available, yet which combined all its advantages.

4. NCIT's thinking on this subject was influenced by the experiencies of two of its Corporate Members, the Railway Development Association (RDA) and the Railway Invigoration Society (RIS), who had held a Joint Public Meeting on October 1st 1968 under the title "Main Line Across London". An important aspect that emerged from this Meeting was the basic difference between London's Underground and Main Line Railways from the Traffic Engineering consideration, in that most of the Underground routes crossed London from suburb to suburb, there being very little terminal working in the centre. On the other hand, the situation regarding the Main Lines was the reverse, there being some dozen or so terminals round the periphery, the amount of cross London running being virtually non-existent.

5. The result was that, across the centre of London, the Underground could schedule 40 trains per hour per track, in each direction, yielding a capacity of 40,000 persons similarly, in spite of every train stopping at each station. But owing to the necessity to reverse every train, on the same track, out of a terminal, the flow on a British Rail track rarely reached half of this figure; and the easement that would ensue from the unidirectional movement at any one platform would be most beneficial. The RDA and RIS drew attention to the 6-track main line across Brussels, completed in 1956, and the RER at present being planned and built in Paris, pointing out that London was lagging behind in this important and fundamental matter. 6. Later, the RDA drew up a "Report on London's Railways", based on these principles. In due course this was put forward as the RDA's "objection" to the Greater London Development Plan Enquiry, where it was favourably received. In this document the RDA proposed a three-stage programme:

(i) <u>For immediate action</u>: the electrification and improvement of the West London Line from Clapham Junction to Willesden via Olympia and the Metropolitan Widened Lines from Blackfriars to King's Cross-St Pancras.

(ii) <u>Construction to be completed by 1980</u>: planning to commence now: a tunnel for main line trains to descend from the surface in the region of Bricklayers Arms, then proceed deep in the London clay, below all other services, in an approximately north-west direction, a station to be provided in central London, at a site to be determined. Finally the tunnel would re-emerge at the surface in the region of Marylebone station. In the context of these schemes, the term 'main line' refers to the size of British Rail's rolling stock as compared with the Underground's, and not to the distinction between main line and suburban.

(iii) <u>A long-term programme</u>: in the GLC document "Movement in London", it was proposed to build with 19'4" diameter tunnels, two routes; one to connect Paddington with Liverpool Street, the other Victoria with London Bridge. These two routes would have an interchange station at Covent Garden, but not necessarily connection between the tracks. Whereas the RDA approved the principle of connecting stations with the maximum flows, this scheme had two drawbacks in that the first route had an unbalanced flow, and Waterloo was left out of it. In addition the cost would be astronomical, and the RDA proposed that this scheme should be deferred indefinitely.

7. The foregoing plan was intended as a radical improvement in London's transport system, quite independently of the Channel Tunnel, but it had always been realised that if the latter appeared likely to materialise, then the scheme might have to be modified. The question to be decided would be, whether the Channel Tunnel route and Terminal should be independent, or shared with other traffic. Reverting to the GLC document mentioned in para 2 ante, in due course British Rail have stated that their choice is White City, for the following reasons:

(i) at White City, London Transport's Central Line runs north and south parallel to British Rail's West London Line, and the land in between is mostly railway owned so that the erection of an entirely new station would cause the minimum environmental disturbance;

(ii) the West London Line connects directly into the Western Region and the London Midland electrified line, thus giving through running to the north and west of England, and north to Scotland;

(iii) the connection to the Western Regions will enable use to be made of a new carriage depot and sidings to be constructed at Old Oak Common, south of the Western Region main line, on railwayowned land. The new Channel Tunnel Terminal will, therefore, not be a "terminal" in the accepted sense; after passengers have detrained, the empty carriages will be worked forward to the depot, where they will be serviced, and stabled until it is time for the return journey. The time spent by trains in the station will be minimal, resulting in a minimal area for construction;

(iv) the new terminal will have the existing White City station on the Central Line integrated with it, and in addition a new station to be built on the Metropolitan Whitechapel-Hammersmith line.

8. The NCIT while agreeing with the above advantages, pointed out that White City is about five miles from the centre of London. In spite of its good interchanges, this distance would create traffic problems besides destroying the centre to centre image of Inter-City, and the Channel Tunnel must surely be the supreme Inter-City service. The NCIT therefore chose Covent Garden as being a central site, and possessing the traffic advantages (ii) and (iii) of White City.

9. The NCIT therefore proposed to adapt the RDA scheme as described in para 6 (ii), namely that a 2-track railway, built to Berne gauge, should be constructed below all existing services, but still as far as possible in the London clay. The approaches would be by existing Southern Region tracks from New Cross and New Cross Gate, and would then descend at a gradient of 1 in 80 from the bridge over the Rotherhithe New Road. This gradient would be within the area at present occupied by the approach lines to Bricklayers Arms Freight Depot. The tunnels would be entered at a point in the region of St James's Road, and would then pass well down below the Freight Depot itself. They would then proceed in a north-westerly direction to pass under the Thames, now deep down, at a point half way between Waterloo and Blackfriars Bridges, at the same time curving until they were running slightly north of west under Covent Garden. Here the two tunnels would branch out to form six platform lines (three in each direction), each about 1000 feet

long, to form the station. The six tracks would then converge to two and continue in a straight line until they were under Paddington station. They would rise to the surface along railway-owned land south of the Western Region main line, between Westbourne Park and Old Oak Common, so as to make use of the same depot as in the White City scheme.

10. In addition, at a suitable point between Hanover and Portman Squares, a branch would take off, with a suitable "flyover" in a north-westerly direction to Marylebone station. It would appear to be desirable to pass under the Grand Union Canal to the north of the station, then to rise to join the Great Central at a point short of Neasden South Junction. The gradients would be acceptable. This scheme would have the advantage of making available the carriage sidings at Neasden, in addition to those at Old Oak Common. It would also give an alternative approach to the Western Region route to Birmingham as from the White City. But the supreme advantage of the scheme is the possibilities that arise from the reinstatement of the Great Central.

11. There is now talk, generated by the growth of Inter-City travel, and the possible necessity for a Channel Tunnel route to the Midlands and North, of a new main line. This would be terribly expensive, and quite unnecessary, as the basis of a modern highspeed route already exists in the Great Central formation. As a start, this could be reinstated from Calvert up to Ashby Magna, then a suitable connection made to the Midland, thus providing a high-speed route and network to the north and east of England, and not least, Scotland.

12. The response of the GLC to these proposals did not go beyond a formal acknowledgement. But on July 13th 1973, a Paper was read at the Hammersmith Town Hall, at a Meeting jointly organised by the Channel Tunnel Association and the London Underground Railway Society, when these proposals received general approval.

13. The scheme is still under study. Frankly it will be costly, but the rewards in transport facilities will be great. It must be acknowledged that the most difficult section will be the descent from the New Cross area to down below Bricklayers Arms, as the London clay does not exist here, and treacherous sand beds with water under pressure will be encountered. Then the necessity for going under the Thames, and below all other Tubes, may mean going below the London clay in places and encountering further water problems. The present state of Civil Engineering expertise should be enough to overcome these, but it will not be easy. There will also be difficulties in the gradients to the Great Western and the Great Central, and the foregoing details may have to be altered, but again it is suggested that the rewards will be worth the trouble.

14. And finally, Covent Garden. The author is well aware of the fact that many people will be horrified at the idea, but he asks all of them to consider it seriously, and how it compares with other possibilities, such as the Conference Hall suggested by the GLC. The buildings are of historical interest, and most of them are scheduled. Bearing in mind the fact that railway operations will be below ground, the above-ground activities will be those associated with administration, tickets, baggages, Customs, immigration and the like. It should be possible to adapt buildings for these purposes, without destroying their character; but, if necessary, most of these operations could be carried on just below street level, leaving the buildings virtually untouched.

15. The choice of a central site should generate less road traffic than one on the periphery; there are spaces in the immediate neighbourhood for multi-storey car parks. As regards the Underground, Covent Garden station on the Piccadilly Line is within the site; also the new Aldwych station on the Fleet Line could be placed nearer than at present proposed. A travelator could be constructed to Leicester Square station on the Northern Line.

16. The choice of Bricklayers Arms and Marylebone was partly influenced by the fact that these stations are not intensively used, and hence the interference with existing services during construction will be less than would be the case with other sites. It is hoped that these proposals which will bring great benefits to London and the country as a whole, with minimum environmental damage, will be favourably considered.

MEMOIRS OF A MET COMMUTER

Recently a retired business man in Ruislip recalled his early commuting days on the Met before the first World War. He writes in the local press:

"At that time many of the stations were of the original wooden construction. Baker Street was one, with curved wooden platforms, probably built as the terminus for the St John's Wood Line before the Metropolitan took it over.

"Only a single pair of lines connected with the Circle tracks, leaving a narrow enough gap between platforms to be bridged during the day by a wide platform or gangplank, so as to facilitate parcels traffic".

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He recalls that the waiting rooms of the stations on the "extension" line had open fires in the winter. On the down platform at Harrow there was a massive cast-iron open fronted stove mounted on a concrete hearth. The stove had a cave-like opening with horizontal bars to retain the huge lumps of coal.

ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

The formal inauguration of the above Association took place on the 23rd March at a meeting held at Imperial College in London, after its provisional setting-up at a Conference in the Isle of Man during September 1973 - which in itself was after a gestation period of many years.

The first President of the Association was the late L.T.C.Rolt, and the Secretary (from whom information regarding membership may be obtained) is N.Cossons, Church Hill, Ironbridge, Telford, Salop, TF8 7RE.

LETTERS TO THE EDITOR

2/4/74

Dear Sir,

'Sixty five's essay in the May issue on 'Via Highgate and West End' tells me what I had not earlier noticed - that Northern Line 1926 stock photos always show 'VIA CHARING CROSS' or 'VIA CHARING X' route plates - the first in slightly condensed letters. My adequately long and reasonably certain memory enables me to add that the corresponding lower plate for the other route was 'VIA BANK'.

The expedient adopted for 1923-5 standard stock, with singleline destination blinds at roof level, when the two routes became available, was to put a small enamel plate, white with black lettering 'VIA', just above the train door, and on the train door to put a revolving triangular prism (more graphically but less exactly, a 3-sided board) on a horizontal axis at the top of the train door just under the fixed plate. On two of its sides the prism had 'BANK' and 'CHARING CROSS' (I think not 'CHARING X') in black on a white ground: the third side was black.

It is a pity that the only two photos I have which show these plates do not show the wording!

When the 1923-5 stock was rebuilt with waist level plates, and a ventilating duct where the blind used to be, the expedient of little white plates ceased to be necessary and they were removed. Since some 1923-5 stock still exists, could connoisseurs tell us if signs of the screw holes for the plates are still visible?

Yours faithfully,

B.J.Prigmore

9.4.74

Dear Peter,

London

Following the enjoyable and instructive study visit to Wembley and Stanmore on 6th April, I was browsing through one of our favourite family books (The Story of 25 Eventful Years in Pictures: Odhams Press Ltd., 1935) in search of pictures of the Wembley Exhibition.

The pictures of the exhibition in 1924 and 1925 are not particularly interesting, but in the 1929 group there is an aerial view of the Graf Zeppelin visiting Britain, flying over the exhibition grounds. The course of the southern end of the Never-Stop Railway is clearly visible, running on the east side of the INER Wembley Stadium loop until just north of South Way, where the two tracks splayed out slightly to end in a very sharp U-turn. The concrete bridge from which we looked down on Wembley Stadium station was the site of the mock-medieval bridge with four towers. The lake and the two main "palaces" look very much as they were in 1925, but it looks as though several new factories had been built between First Way and the railway loop, north of the medieval bridge.

6 Launceston Gardens, Perival, Greenford, Middlesex, UB6 7ET. Yours sincerely,

D.F.Croame

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6 Launceston Gardens, Perival, Greenford, Middlesex, UB6 7ET Yours sincerely,

D.F.Croome

13/4/74

Dear Sir,

With reference to the recent letters about station names, what about West Ham station, Although the L.T. signs show the name as 'West Ham', the B.R. Eastern Region suburban timetable (which incidentally covers the District and Victoria Lines) shows the name as 'West Ham Manor Road'.

Firstly, when did L.T. drop 'Manor Road'? Secondly, have they forgotten to tell B.R. about the change?

70 Marlborough Road, Romford, RM7 8AJ. Yours faithfully,

D.J.Carson

NEWS FLASHES

1332 Introduction of tube rolling stock on the East London Line posed a problem in that the former District and Circle or current Metropolitan (Hammersmith & City) route diagrams hitherto used on ELL trains would not fit the available space. A special East London route diagram from Shoreditch to New Cross and New Cross Gate has therefore been introduced and is labelled METROPOLITAN LINE EAST LONDON SECTION. This compares with the wall timetable headed Metropolitan Line East London Branch. Another feature of this, the shortest route diagram prepared for car interiors, is the connection at Whitechapel, shown as to the 'District and Metropolitan Hammersmith and Barking Line". In the period before the changeover of stock two of the four-car tube sets were berthed on the south side siding road at Whitechapel, but seemed to attract little attention from passengers.

A new car line diagram appeared on the Piccadilly Line from 1333 The diagram has been redrawn and shows the late April 1974. Heathrow Extension under construction as part of the line and the note about the connecting bus Al is moved to an interchange box at Hounslow West, instead of being printed as a separate note to the left of the station. The most obvious difference, though, apart from the use of roundels instead of bullseyes is that all station names are again printed in upper case. The use of lower case was introduced several years ago in order that more important stations could be shown in upper case and therefore would stand out from the rest. On the last edition of the disgram (1971), the following stations only appeared in upper case: Cockfosters, Finsbury Park, King's Cross (not St Pancras), Holborn, Leicester Square, Piccadilly Circus, Earl's Court, Hammersmith, Acton Town, Hounslow West, Ealing Common, Rayners Lane, Uxbridge.

1334 LT announced in early April that the escalators at Baker Street are to be improved at a cost of £636,000. The two oldest escalators, dating from 1914 but rebuilt before the last war, are to be replaced, and the other four will be modernised. The work is expected to start late in 1974 and be completed before the opening of the Fleet Line in 1977. The escalators are at present used by 30m passengers a year.

Mr G.S.Barkway, DFM, MIMechE, has been appointed Divisional 1335 Engineer "B" in the Rolling Stock Division of the Railway Operating Department, responsible for depots on the Metropolitan, Bakerloo, Northern and Victoria Lines, and for de-icing matters, rolling stock cleaning and new works. Mr Barkway is 52, has been with LT since 1950 and since 1973 has been Line Engineer (Piccadilly). Staff shortages are still playing havoc with schedules; 1336 one day in mid-May LT stated that they were only running about 400 trains during rush-hours against the 480+ which should have been in use. The new control room to handle the electricity supply to the 1336 Fleet Line will be at Mansell Street, Aldgate. It will also supply the eastern end of the District Line, replacing the present Aldgate and Dagenham Heathway control rooms.

1338 Battery electric loco L76 has been renumbered L33.

The LT Report for 1963, published 25th April 1974, reveals that the Executive made a profit of £10m on revenue account for the year, but that this was mainly attributable to the shortage of staff and rolling stock which between them meant that the reliability and frequency of both bus and train services "fell short and, in some cases far short, of the levels at which the Executive is aiming".

Staff shortages is the principal theme of the Report, and mention of it appears under numerous headings, and the very serious effects of the position are reiterated frequently, one comment being that although shortages of other public servants - policemen, firemen, ambulance drivers or teachers - have serious consequences, none of them affects so many people so frequently as cancellations of trains and buses.

Car miles run on the Underground during the year were 6% down on 1972 and 7.5% less than the schedules required. The number of passengers carried on the Underground was 644 million - down by 1.8 per cent on the previous year. Underground passenger mileage was down to 3,332m, a reduction of 2.3 per cent on 1972.

Staff shortages are pinpointed by the actual figures; at 31st December 1973, the total number employed by the Executive was 54,897, compared with 57,456 at the end of 1972, the 1973 figure being 6,822 short of establishment.

Some reference is being made in the current report on the activities of the design team, but some Londoners are likely to disagree with the Executive on the results of the 1971 decision to "strengthen the control and integration of its design policy". One comment in particular must be referred to: "The famous 'bar and circle' device on stations, bus stops and vehicles began to appear in a slightly refined and modified form" (our underlining). Tf the dull, single-colour, heavy-looking version of the bar and circle now appearing all over the town like a rash is a refinement of the version it replaces, then lets get back to crudity as quickly as possible. Reference is also made to the yellow entrance doors on buses 'to lighten the rolling stock livery', but significantly nothing is said about red doors on silver Underground trains - which we understand are being phased out after a very short stay.

10.30 Saturday 8th June Another Walk over the Heathrow Extension of the Piccadilly Line to keep up with progress in construction. No booking necessary; the party will meet on the platform at Hounslow Central.

<u>19.00 for 19.15 Friday 14th June - PROVISIONAL - see note below.</u> An Illustrated Talk by our immediate Past President, Charles F. Klapper, FCIT, FRGC, whose subject will be 'Unorthodox Railways'. <u>10.30 Saturday 22nd June</u> Visit to Wembley Park Station and Signal Box, LT. This Visit is strictly limited in numbers; applications at once please to S.E.Jones, 113 Wandle Road, Morden, Surrey, SM4 6AD, enclosing a first class stamped addressed envelope.

<u>13.30 Saturday 22nd June</u> As a follow-up to the above visit, but unrestricted in numbers (and no booking necessary) there will be a short Study Tour of the Stanmore Branch. The Party will meet in the Booking Hall of Wembley Park station.

<u>19.00 for 19.15 Friday 12th July</u> - PROVISIONAL - see note below. An Illustrated Talk by B.O.Buglear, Civil Engineer (Maintenance), London Transport, whose subject will be 'Maintenance of Way and Works'.

At the time of going to press, arrangements for the usual Note Society meetings at Hammersmith Town Hall are still disrupted. This, second, disorganisation of our programme is due to strike action (or perhaps one should say inaction) of NALGO members, who are more concerned with their own pay claim than they are with any obligations to the public. If arrangements for the meetings noted above have been made at other halls by the time this Journal is circulated, there will be an insert giving the details; if there is no insert, members wishing to attend should telephone the Assistant Secretary or the Chairman just before the meeting telephone numbers - Desmond Croome 01-997 6346 (evening): Peter Davis 01-402 9791 (day) or Hornchurch (49) 47361 (evening), Efforts are being made to find another hall in which meetings can be held without being subject to the whims of the staff, and if these are successful, arrangements for the new venue will be finalised as quickly as possible.

NOTICES

Cab Permits Recently several members have raised the question of Permits for cab rides in London Transport trains. These are never issued by LT as it is against policy. Printed by Matain Ltd., 2 Salisbury Court, London, EC4 Published by TLURS, 62 Billet Lane, Hornchurch, Essex, RM11 1XA.