

# GETTING AROUND LONDON

## THE RENAISSANCE OF LONDON ORBITAL RAIL SERVICES – A 21ST CENTURY SURPRISE?

by Eric Stuart

Readers may recall a couple of recent articles, essentially recording the history of rail services serving Kensington Olympia (*née* Addison Road). Travelling recently on a London Overground train from Clapham Junction to Highbury and Islington, comparing it with a similar journey not so many years ago, I could not help again being struck by the query: “Where on earth have all these passengers come from?” – and noting again the amazing transformation that has taken place over a comparatively short period of time.

But we need to go back from 2016 to a date about 100 years ago if we are to get the measure of what has happened – and is still happening.

In the 19th Century, London was well into the stage of urban development beyond being a “foot city” – that is, a city where most people just walked from place to place. The main railways had often built their termini on the edge of the then built-up areas, but the spread of development led to what we call suburban railways. These were mainly radial, but (as stated in my previous article) some were quite convoluted and served to take passengers between different parts of the inner suburbs. The Waterloo – Kensington – Hammersmith – Richmond service is a case in point.

There was also a desire of the northern and western railways to serve parts of London directly, leading to such lines as the GWR, Midland and Great Northern having goods’ depots – especially coal depots – on the eastern and southern sides of the city. These depots were served by what was a virtually contiguous series of orbital lines, which had come to be served by passenger trains.

The basic ‘ring’ of orbital routes around London was formed by lines which are known as the North (NLL), South (SLL), East (ELL) and West (WLL) London lines, plus the Willesden Junction – Richmond and Kentish Town (now Gospel Oak) – Barking lines *via* the Tottenham & Hampstead Joint line (T&H). The services dealt with in this article largely grew up in the second half of the 19th century.

This was parallel to what had happened in other European cities, such as Paris (*Petite Ceinture* – *PC*) and the Berlin (*Ring Bahn*). However, there was one aspect that made the circuit around London different from the Paris *PC* and Berlin *Ring*. Both of these Continental examples were single entities, whereas the lines around London arose as separate pieces that came together to ultimately form a whole, and each had their own characteristics. In a number of cases, parts of the link were built by single railway companies, but, in others, they were built as a result of joint enterprises. They thus grew up with varying characteristics. Although recent developments have brought a uniform image, the differences can often still be seen if one knows for what to look.

### ORIGINAL SERVICES

The NLL is mainly the former North London Railway (NLR) which developed to serve the area in its name. To the east, it reached Poplar and some of its lines are now Docklands Light Railway (DLR) routes. Services on the NLL were the Outer Circle from Broad Street to Willesden Junction, thence to Mansion House *via* the WLL and the Metropolitan District Railway (the District), plus trains to Richmond and Kew Bridge that branched off at Willesden Junction. Trains to and from the east end of the NLL were also based on Broad Street. Although not strictly part of this survey, there were also services from Broad Street to the Great Northern suburban lines (e.g. Potters Bar, Hertford and High Barnet) and to Watford on the old LNWR, some of which stopped at NLL stations. The NLR was fairly notorious for running trains of 4-wheelers hauled by its 4-4-0 tanks, after most of the other London companies had moved to 6-wheelers or bogie coaches. The feelings of commuters travelling on such stock, especially from places like Potters Bar, were not complimentary. But the poor NLR was just a suburban line and had no rich longer distance traffic to subsidise it. It merged with the LNWR just before the “Grouping”.

The WLL stemmed from a desire by the railways north of the Thames to reach the river (the West London Railway) followed by a wish to cross it and join with railways south of the Thames (the West London Extension Railway). There then grew up services between the northern and southern railway companies, which have been dealt with in previous articles. Northern termini included Broad Street

and Willesden Junction, with southern ones at Waterloo, Victoria, Clapham Junction and other suburban stations.

The SLL was simply a line built by the London, Brighton and South Coast company to tap the southern inner suburbs, joining its two London termini.

The ELL was broadly a parallel to the WLL, joining northern and southern companies' lines, but using the Marc Brunel Thames tunnel, built in the early 1800s, to cross the River. The GER ran trains from Liverpool Street to various south London destinations, whilst the southern (small 's') companies ran to Liverpool Street and different places on what are now the Metropolitan and District lines. There was also the longer-lasting service from the Hammersmith & City.

A notable feature of all almost all these services was that they originated in one of the London terminals. The WLL one already mentioned started at Waterloo. The NLL trains were based on Broad Street. The SLL ran between Victoria and London Bridge. The ELL service was largely to and from Liverpool Street. The trains on the Tottenham and Hampstead Line started at St. Pancras, thence through Kentish Town to Barking, with some trains to East Ham and others through to and from Southend.

They provided for short-distance movement, although the development of bus, tram and then various services which came within the ambit of the Underground took place. Such modes tended to be quicker, more frequent or more direct – even sometimes a combination of these – and thus undermined the *raisons d'être* or at least the viability of many of these earlier services. The result of all this was that some of them were reduced and or curtailed as the years passed.

## **POST 1914**

By the end of the inter-war period, the services had assumed the following basic forms:

### **WLL**

Waterloo – Richmond *via* Kensington – cut back to Waterloo – Kensington.

Clapham Junction – Willesden Junction – reduced after having been electrified.

Broad Street – Mansion House (Outer Circle) – cut back to Willesden Junction – Kensington, although also electrified.

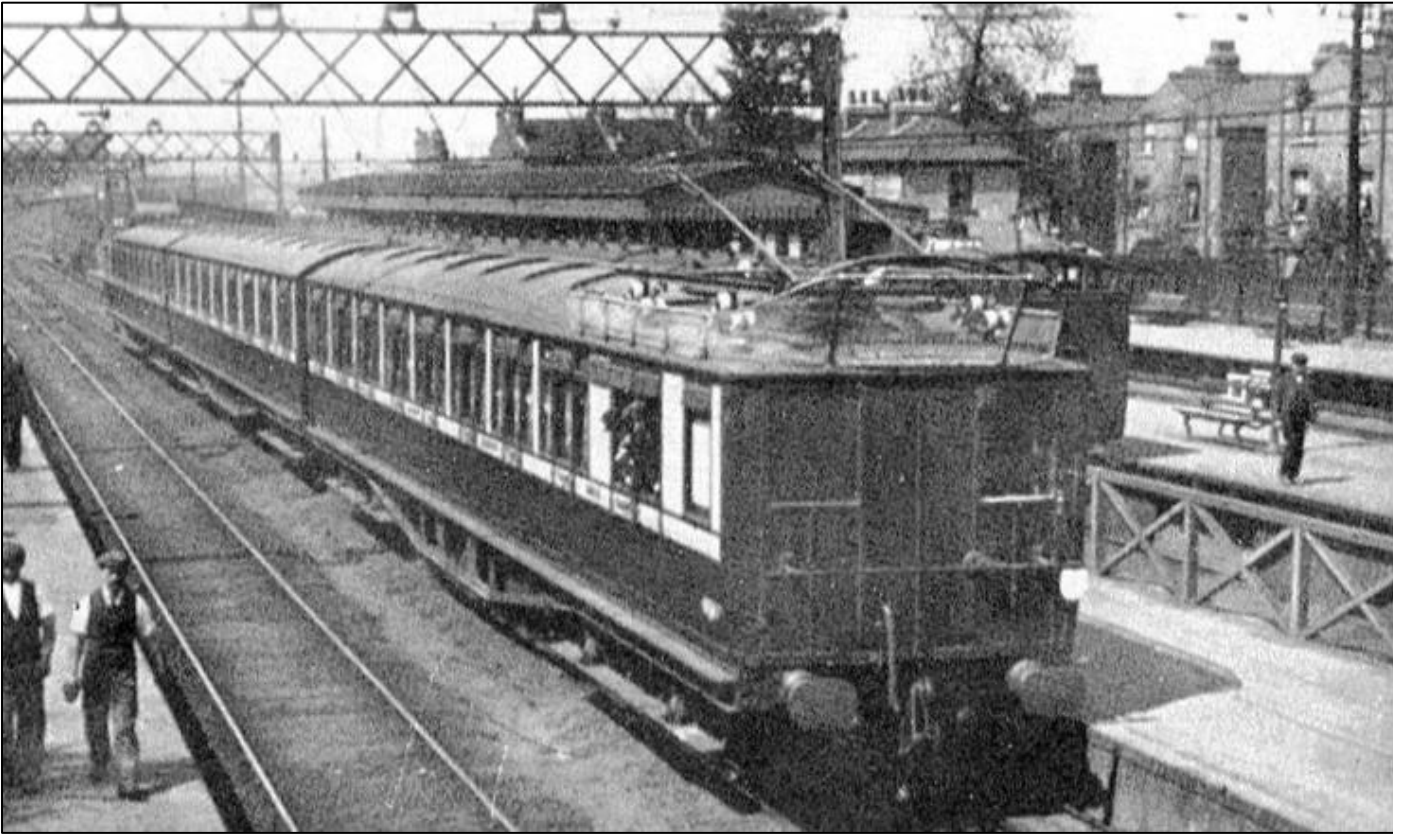
The Middle Circle was covered in previous articles and is outside the ambit of this review.

### **SLL**

To combat tram competition, the SLL became the first London “main line” service to be electrified, becoming the forerunner of the London, Brighton and South Coast “Elevated Electric”. These lines later become part of the Southern Electric, although the Southern Railway replaced high voltage ac with low voltage dc, which seems odd today!<sup>1</sup> Such was the expected clientele then that there was one complete first class coach in each three-car SLL electric train.

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<sup>1</sup> A recent proposal was to re-convert the Southern Region d.c. electric network to ac current!



One of the original trains is seen (*Above*) at Wandsworth Road.

**Photo: Courtesy Eric Stuart**

### **ELL**

The regular service had been cut back to Shoreditch at the north end and New Cross and New Cross Gate at the south, plus the Hammersmith service, although mainline freight and excursion passenger traffic continued. It had become part of the Underground in 1933. Otherwise, it continued on its shuttling to and from the two New Cross stations every day, with the peculiarity of having a Sunday service to Shoreditch as well as a more normal weekday peak service, whilst the off-peak service reversed at Whitechapel.

### **NLL**

The Broad Street – Richmond service had been electrified and continued, although the spur to Kew Bridge did not survive WW2, whilst the Outer Circle service had been withdrawn east of Willesden Junction, as already stated. The through services to and from the north still ran, stopping at some NLL stations. There was still a service from Broad Street to east London.

### **T&H**

The service from St. Pancras (occasionally Moorgate *via* the Widened Lines) was increasingly cut back to mainly operate only east of Kentish Town to Barking and East Ham, although Sunday trains still ran through to Southend, sometimes from Cricklewood and other Midland suburban stations.

Then came the Second World War. Between 1940 and 1944, a number of 'incidents' (the euphemism for bombings!), plus 'economy measures', cut back some of the services even more and some were totally withdrawn.

### **POST WW2**

By 1945, the services had deteriorated further.

On the WLL, services were virtually non-existent. Addison Road, later Olympia, became almost a ghost station, home to parcels' trains and the secretive skeletal service from Clapham Junction for Post Office staff, plus the spasmodic exhibition service of the District (which began in December 1946).



Four views of various District Line stock on the then exhibitions only service between Earl's Court and Kensington Olympia, all seen at the latter. Four-car sets sufficed at most times in the early days, as seen (*Above, Left*) with a former G class (Q23) motor car nearest the camera. On the District Line at that time was the 1920 F Stock (*Above, Right*) with a single-equipped motor car former control trailer nearest. In both photographs, all the electrified tracks remain in situ, despite being disused (by electric trains) since October 1940. Busier exhibitions required the use of six-car trains and an ex-K class motor is seen (*Below, Left*) in a mixed Q Stock formation, the Q38 cars (second and third) being prominent with their flared skirts – by this time the current rails on the three left-hand tracks had been lifted. Earlier, and with current rails still in place, a rather new-looking six-car train of R Stock stands at Kensington Olympia (*Below, Right*).

**All photos: LURS Collection**



The South London Line, like Old Man River, just “kept rolling along”. The two coach units that had been converted from the old Elevated Electric trains were finally replaced by 2-EPB units in the mid-1950s. Otherwise, the service was much the same, although East Brixton station, precariously perched above the streets, was closed in January 1976. One suspects that higher authorities thought the rest of the line would follow before too long!

The ELL no longer included a Hammersmith service (withdrawn 1939<sup>2</sup>) and seemed to be slumbering in its rather unusual and ‘different’ situation, with its special station name boards being virtually the only reminder of its non-Underground origins. For those interested, its unusual features and tendency to feature older rolling stock made it sought after. Walking down the stairs at Whitechapel was to enter a very different railway – even a different age<sup>3</sup>. For some years, one might have suddenly encountered a steam-hauled freight or passenger train passing through and, even if not, there was the thought that one was hallucinating, as the station name boards were not round but lozenge-shaped and were green rather than red! And, when the train arrived, it could well be very different from that just left ‘upstairs’ – even, at one period, having sliding doors that had to be opened and closed manually by passengers. Another curiosity was the special Sunday service for people visiting the markets. All this added to its curiosity factor and drew attention from enthusiasts. As regards the train staff, the story goes that,

<sup>2</sup> The illuminated sign over the entrance to platform 5 at Baker Street station included New Cross in its list of destinations until at least 30 years after the through service ceased.

<sup>3</sup> This was even more so than the distinction of the GN&C.

whatever rosters were sent down from 55 Broadway, the men at Surrey Docks/New Cross Depot ran the line the way they wanted to ....<sup>4</sup>



From electrification in 1913 right up to the time the East London Line was taken over by London Overground in 2007, the service was operated by second-hand stock – never having had its own from new. From 1936 to 1953, the shuttle service was provided by District H Stock, a collection of stock built between 1910 and 1914. Departing Surrey Docks (*Above, Left*), a C Stock motor car is at the rear of the train, which was originally a trailer, converted to a motor car in the late-1920s, the giveaway being the grouped headlights, enclosed destination plates and smaller offside cab window. A C Stock motor in near original condition is seen at Shoreditch (*Above, Right*).

**Above:** In addition to the illuminated ‘New Cross’ sign at the entrance to platform 5 at Baker Street (q.v.) here was also an enamel sign leading to platform 5 at the south end of platform 1. Part of an MW Stock motor coach stands close to the buffers in platform 1.

**All photos: LURS Collection**

The NLL services were only to and from Richmond, plus some residual trains to and from north of London only in peak hours – although that included Saturday lunch times! Six car trains ceased, although new rolling stock was provided from 1957.

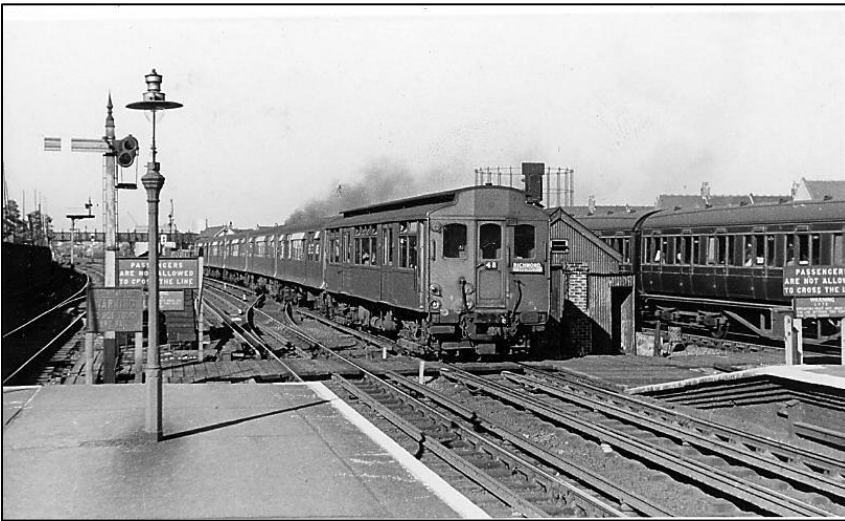
Overall, no improvements took place and indeed matters gradually seemed to deteriorate – part of what BR’s Sir Peter Parker later called “the crumbling edge of quality”. In the 1960s, any Saturday peak ‘business’ services ended as the five-day week became almost universal.

Travelling over a number of sections of these lines became only possible by popular railtours or if one could find a suitable excursion or Summer Saturday holiday train – which may have originated in Walsall!

The T&H service had been dieselised late in 1959 when the St. Pancras – Bedford DMU service was introduced. By then, East Ham was no longer served and through trains beyond Kentish Town and Barking faded, too<sup>5</sup>. And an hourly service was hardly Metro-style! But at least it kept going and formed a useful link for those ‘in the know’. Its link with central London was better by using the Northern Line to the adjacent Kentish Town LT station, as ‘connections’ to and from St. Pancras had become rare.

<sup>4</sup> In reality, to find out which crew was on a train, the Yard Master had to see the whole service round, which took about half an hour. It was very much a ‘please yourself’ railway, although staffing cancellations were rare, indicating that all ran well when left well alone!

<sup>5</sup> I believe the last through trains to Southend were withdrawn with the completion of the LT&S electrification in 1962.



By the early-1950s, Willesden Junction (high level) was in a deplorable state and by the end of the decade the station was rebuilt. The footbridge over the tracks (*Above, Left*) was closed when this was taken, being access to the Earl's Court platform, which is seen in a delapidated condition (*Above, Right*). Looking east at East Ham (*Left*) with a six-car train of mixed Q Stock arriving. The unelectrified track at far left was used by the erstwhile Kentish Town – East Ham steam service via the T&H.

But then, at last, glimmerings of hope appeared. The privatisation of Britain's railways is often claimed to have brought all the improvements to London rail services. However, it must not be forgotten that Thameslink was a British Rail innovation.

A further initiative was the tentative revival in 1979 of the eastern arm of the NLL, with the introduction of a DMU service from Camden Road to North Woolwich, bringing passenger train service back to the Dalston – Stratford section after over a quarter of a century and linking up with another east London service that was in danger of extinction<sup>6</sup>.

Although threatened, the Broad Street – Richmond service failed to fall under the Beeching Axe<sup>7</sup>. Broad Street was now an empty 'cathedral' of a station, with only the three Richmond trains an hour, plus a very few Watford peak-hour trains, disturbing the quiet<sup>8</sup>. The stations between Broad Street and Dalston Junction had closed during the war and the writing was on the wall for Broad Street itself.

The number of tracks at Broad Street gradually reduced and the station finally shut with effect from 30 June 1986. The Broad Street closure involved the building of a connection at Hackney, so that the few remaining trains to and from the Watford line could reach Liverpool Street. This was a political move and the service and connection did not last long, so again rather falls outside this remit.

<sup>6</sup> Over the years, the Stratford – North Woolwich line had become a largely self-contained, with some through trains to Palace Gates (closed 1963) and the Lea Valley line. It was probably the second to last steam suburban service in the London area.

<sup>7</sup> The argument was that there was no need for three routes from London to Richmond, showing the lack of awareness of intermediate travel and the convenience of a simple transfer between Liverpool Street and the adjacent Broad Street stations.

<sup>8</sup> The ones to the Barnet line had not been restored after the war, as the Northern Line extensions had replaced them; whilst the other ex-Great Northern services were replaced by the electrification and diversion to Moorgate via the GN&C.



Meantime, a feature of the ex-LMS lines that ordinary passengers might not have noticed was the change from 3rd/4th rail to just 3rd rail electrification from 2 August 1970. This later enabled the operation of ordinary Southern Electric stock on the NLL and the 1957 trains were replaced by two-car units of the 2-NOP/2-EPB type, although this reduced capacity still further. A by-product was that some esoteric railtours were possible as well as allowing through excursions to and from the SR. 2-BIL, 4-COR and 4-CEP stock made visits. Seen at Broad Street (*Left*) are 2-EPB units and in the distance on the right are class 501 units, which

were approaching the end of their days, as was Broad Street station itself. The main station building closed in June 1985 and a short-lived but temporary entrance was provided via Sun Street Passage for a further year.

But the scene was being set for the re-development of the orbital rail service, as the Richmond service became linked with the now-electrified North Woolwich trains once Broad Street finally closed.

However, we are now moving into the era where the Docklands development began to take off. This had the effect of emphasising the eastern side of London once again. The run-down of the London docks and the war-time damage had taken their toll, but things were about to change in a big way. The DLR, with its 11 tram-like cars, became subject to almost continual re-building, improvement and enlargement. The transport to, from and within the east of London needed radical improvement. Road congestion throughout London and the suburbs worsened, hindering all forms of road transport, including bus services. Even if the money and will to build more underground lines immediately had existed, it would hardly have been practical. Yet, all around London there were rail lines that were disused or underused and were capable of development. Ironically, the reduction in some freight services across London also freed some capacity to allow frequent passenger services. The demand fulfilled by the rejuvenated east end of the NLL showed the potential of surface lines to aid the situation. Increases in the population and allied further development to the west of London showed the inadequacies of transport there too. On the WLL, a service had started between Watford/Milton Keynes and Clapham Junction (the termini have changed over time) and this was supplemented by a stopping service, with previously closed stations on the WLL re-opened or replaced to accord with new development.

Another feature to encourage travel was the building of the two large Westfield retail sites at Shepherd's Bush and Stratford<sup>9</sup> – and, of course, the London Olympics.

Meanwhile, the SLL continued more or less as it had for decades. However, the incongruity of a two-coach train occupying a platform at Victoria and London Bridge in the peak hours, when that space could be used by a crowded 12-car train from further out, led to some of the SLL trains reversing at Battersea Park in the peak, although the change there would hardly have encouraged patronage!

The ELL was some-what rundown and was to be closed for refurbishment, including the tunnels under the river, now 150+ years old. The viaduct connecting Broad Street station with the orbital section of the NLL was still in existence and it was decided to extend the ELL service northwards to Highbury, with new and reopened stations. For a time, it was supposed that this would just be an extended LUL service, but the vision broadened. The re-opened ELL was to become a part of a whole new transport medium for the capital – an 'overground-underground' and has taken on the obvious name, London Overground, which places it as an equal to London Underground, aided by a similar and parallel image.

In 1981, the western terminus of the T&H was changed from Kentish Town to Gospel Oak, with a bay platform built beside the NLL ones there, so that the trains could reverse without getting in the way of freight services. The service was enhanced to half-hourly, becoming the last haunt of first generation DMUs in the London area. The service then became operated by Sprinters. For many years it still

<sup>9</sup> Why did the developers not call the one at Stratford EASTfield?!?!

gave the impression of being a branch and a 'poor relative' at that. Crowding was common. The freight on this line is a significant factor.

## THE LONDON OVERGROUND ERA

The new London Overground has expanded and services are currently as follows<sup>10</sup>:

WLL – The Clapham Junction and Willesden Junction service now linked to the NLL.

SLL – Service linked to ELL and diverted to Clapham Junction – thus freeing up terminal space at the former termini and gaining new connections.

ELL – Trains re-extended to south London destinations, including Croydon, Crystal Palace and later the SLL – (see below). Northern terminus now Highbury & Islington *via* a resited Shoreditch station and re-opened NLL stations.

NLL – Trains, now operating to Richmond and Stratford, plus Clapham Junction *via* WLL.

T&H – From 2010, new Turbostar DMUs were introduced and the service has become four per hour daily.

From the above, it will be seen that it is generally no longer possible to speak of the services in their old constituent forms as the services run through between different sections, which is the great feature of the service. It is now, therefore, possible to travel completely around the capital, with changes at Clapham Junction and Highbury & Islington. Notice also that now these services are all orbital, avoiding the London termini, in contrast to the situation 100 years or so ago, showing the high demand for such services between suburbs and to avoid travelling in and out of the centre.

For the new London Overground service, a fleet of electric trains was introduced between 2008 and 2011. Based on the Electrostar series of trains, the class 378s feature 'walk through' inter-car connections and longitudinal seating, allowing plenty of standing room for the comparatively short journeys that many passengers will make. They do not have toilets. The new trains used are far more suitable than the 'tube' stock that make journeys of longer distance<sup>11</sup>. Some are the third rail only units that would only operate south of Highbury, whilst an AC/DC version works on other lines. The trains were initially of three cars per unit and there seems to have been no intention to run them in multiple. However, such was the popularity of the new services that units were soon lengthened to four and now to five cars. And still they fill up!

For the Barking line, eight units of the Turbostar DMU were delivered 2009-10. They also have no toilets, but have conventional, transverse seating.

### “THE FUTURE’S BRIGHT – THE FUTURE’S ORANGE?”

The electrification of the Gospel Oak – Barking line has at last been authorised after much political to-ing and fro-ing, the electrification also aiding freight traffic between the east and north. Electrification should avoid the need for lengthening the present trains, which was previously mooted. It is also proposed to extend the passenger service at its eastern end to the area south of Barking by building a new line. There seems to be no decision as to whether the present western terminal arrangements will remain or the route extended. Extension of the trains to and from West Hampstead (at least) could be useful, but would presumably reduce freight train paths.

Whilst extension of the Bakerloo Line to the Mid-Kent line and ultimately Hayes has been suggested, the extension of the Overground from New Cross would appear far more sensible if the current service is considered worthy of improvement.

The passing of the SLL trains through Brixton and Camberwell seems plain daft and a new station at Brixton (nearer the centre than East Brixton was) and possibly Loughborough Junction (allowing changes to and from Thameslink there) would seem to be fairly short-term improvements needing attention.

It also seems reasonable to suppose that, with road congestion continuing and the expected increase in the London population, patronage of the Overground will continue to rise. Whether that can be combated by a more frequent service, with improved signalling or by lengthened trains, is debatable. Already, at some platforms, some doors of the train have to be kept closed. Some stations, it is

<sup>10</sup> Of course, there are now radial LOL services as well.

<sup>11</sup> My personal hate, however, is the longitudinal seating that hinders looking out of the window, which is one of the pleasures of rail travel, especially above ground.



maintained, cannot have platforms lengthened easily, although a large proportion of the platforms at current Overground stations can still or used to take six or more cars. Lengthening of platforms to cope is now under examination.

Whatever changes may come, the lines have had an interesting and varied past, and a very secure present, with the orange roundel appearing in more places. The future also seems assured, whilst still presenting those interested with traces of the lines' varied history if they care to look.



**Above: (Left)** Two of the four locomotives used for the refurbishment of the Waterloo & City Line are seen at Deptford Road Junction in March 2008 when work was under way on the first stage of the East London Line conversion.

**Above: (Right)** The long disused section between Deptford Road Junction and the Southern main line seen when the Up line remained in use for goods and excursion trains

**Photos: Brian Hardy (Left) and LURS Collection (Right)**



New Cross depot in the early-1970s (Left) with two trains of Q Stock, and in April 2010 (Below, Left) three years after closure and demolition of the depot, taken from a passing SouthEastern EMU.

**Photos: LURS Collection (Left) and Brian Hardy (Lower Left)**



To give an understanding of passenger growth on the East London Line, "When we took over in 2007, we were just shy of 110,000 passengers per day. Today we carry more than 450,000 passengers on a daily basis, so there's been a substantial amount of growth," said Gareth Biggins, LOROL's head of concession management". He said carryings on the ELL had grown by 20%.

Coincidentally on 21 January 2016 it was announced in the media that London suburban rail services would be taken over by TfL as franchises come up for renewal. However, this is a discussion document (some might say 'spin') and nothing is yet set in stone. If all this eventually does happen, the future will indeed be bright – and

orange! Ed.



**Above:** It is fitting that when this article was being finalised, it was announced that the five-car project on London Overground had been completed on 6 January 2016 with the 57th (and last) train. It is seen arriving at Haggerston on 23 January 2016. How long will it be before London Overground has to consider six-car trains ....?

**Photo: Christopher George**