

REPORT OF SOCIETY MEETING

GROWING THE DLR

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**A report of the LURS meeting at All Souls Club House
on Tuesday 12 September 2017**

Our speaker has worked for TfL on the DLR for ten years, but the system first opened 30 years back in 1987. The presentation started with an ITN video showing the DLR under construction in the docklands wastelands of the time. The system started with 11 single-unit trains, of which nine were required for two services, from Island Gardens to Stratford and also to Tower Gateway. The London Docklands Development Corporation intended to demonstrate the best of British engineering, and trains were driverless in normal service from opening. Designed at a cost of £77m for a capacity of 1,500 per hour, six-million passengers were carried in the first year.

The first extension reached Bank in 1991, with growth to 21 vehicles. Whilst preparing for two-vehicle trains to provide capacity for the new Canary Wharf office development, the DLR was closed evenings and weekends, giving it a reputation as a commuter line. In 1994 a branch opened to Beckton for the Royal Docks, with a new maintenance depot and new Alcatel Seltrac moving-block signalling. 70 more vehicles were obtained, and the original ones were sold to Essen, Germany, where they still run.

The Lewisham extension opened under a PFI deal in 1999. The King George V branch, serving the City Airport, opened in 2005. It included a potential station site at Thames Wharf for future development. 66% of airport users now travel by rail, the highest anywhere in the world. This branch went on to connect with the mainline station at Woolwich Arsenal in 2009. The Crossrail tunnel now runs less than a metre above the DLR, although the original design provided for it to run under the DLR.

In 2006, the Silverlink Metro route closed for conversion for DLR operation to Stratford International, for Olympics travel. The line reopened in 2011. New London Overground platforms were provided at Stratford to free up the low-level ones for the DLR. In 2007 a train order was placed to provide mainly three-unit trains throughout the system to meet growing demand. The Woolwich Arsenal and Stratford International branches had been designed for three-unit trains, but other platforms needed extending. There are still some selective door opening sites. South Quays station had to be rebuilt on a straight section of line.

Tower Gateway was reconstructed over almost a year. The two-road terminus was replaced with one central road between platforms, and a spare siding outside the station. The Delta Junction was provided with a flyunder to avoid Bank to Lewisham trains conflicting with Canary Wharf to Poplar trains. At Canning Town, a flyover was provided for the Beckton line to avoid conflict with Woolwich to Stratford International trains.

So, in 30 years, the DLR has grown from 11 units serving 15 stations, to 149 units serving 45 stations, and has been central to supporting growth in East London. The DLR was the only rail link to the first 25,000 jobs at Canary Wharf. Around 115,000 people now work on the estate, and there is capacity for 200,000. Lewisham, Deptford and Greenwich have seen 2,800 new homes in the last five years, and many more are under construction. Langdon Park accelerated construction of hundreds of new homes worth £382m for a £7.5m station. 1,300 new homes have been built at Royal Victoria, and this will become 2,400 when current construction is complete. The Woolwich extension has seen 15% to 20% annual growth in demand since opening eight years back.

The biggest achievement of the DLR was handling Olympic crowds five years ago, especially at Excel, the second largest Olympic venue, with no other public transport service. 501,000 passengers were handled in one day, with four days of 100% performance, and headline performance of 98.87%. Prior to the Olympics the busiest day was in May 2012 when the DLR carried 373,000 passengers on a day when the Jubilee Line was out of action. The equivalent of the combined populations of Norway, Finland and Denmark, 15.79m passengers, were carried in the 45-day Olympic period.

In 2017 the DLR operates over 38km route network and has 89% overall customer satisfaction. Reliability shows 99.01% of scheduled departures operated. The average weekday has 379,000 passengers, with 233,000 on weekends, giving 117 million annually. Total passenger mileage is equivalent to 843 return journeys to the moon!

For the 30th anniversary, a communications campaign was shown giving the public 30 things to do via the DLR. Also, a new route map was designed to use different colour shades for each group of services. A current ITN video report was shown to compare with the original video filmed before opening.

INTO THE FUTURE

A chart of future projected demand for DLR services showed continuing growth up to opening of the Elizabeth Line, when travel patterns will change. The new line will provide faster links from Canary Wharf to the City and Woolwich, with some move of traffic from Canning Town to Custom House, but the DLR will provide feeder services to the new line. However, housing and employment development is expected to accelerate such that DLR demand continues to grow within three years. Beyond announced development plans, there is potential further growth still to be made public. Until new trains are delivered, current timetables can be tweaked and staffing adjusted to better manage the busier platforms and services. The current franchise agreement provides for three further levels of service.

Canary Wharf and South Quay are expecting to grow a further 100,000 jobs and 18,000 homes, without the Billingsgate Market site that could also be redeveloped. Canning Town and Silvertown expect 30,000 more jobs and 20,000 more homes. The Royal Albert Dock and Basin projects a further 18,000 jobs and 8,000 homes, with Beckton Park station expecting 2,500% growth, whilst Stratford and the Olympic Park foresee 50,000 jobs and 15,000 homes, for which Pudding Mill Lane capacity was provided. However, land that was once classed for industrial use is being released for development and leisure. Land that has consent for offices is being resubmitted for residential use. These areas could provide a further 100,000 homes by 2030, over and above the current 280,000 with planning permission.

Bank station is being reconstructed to provide a new ticket hall and step-free access for the DLR along with a new Northern Line platform. The Elizabeth Line will remove demand here, but the situation will deteriorate before works are completed, with severance of the DLR concourse. Recent trial Wi-Fi monitoring of passenger movements was revealing in the variety of alternative routes found by passengers, and will probably guide future changes here.

FIVE AREAS

There are five areas where the DLR will be concentrating efforts over the coming few years.

Growth in the Royal Docks: Currently construction work is widespread, and this is before work starts on the ABP development, the first stage of which is due to open in Summer 2018. That single development is beyond the capacity of the current stations on the Beckton branch. Then there is growth on the Woolwich Arsenal branch, including at the Airport, which will cause crowding. A new Custom House station will help deal with Elizabeth Line interchange, with two staircases to a new mezzanine level. Works here must be complete before traction current is provided for trial running on the new line.

Expanding Canary Wharf: There will be three stations of the same name for DLR, Elizabeth and Jubilee lines, with no direct connection between them. There will be crowding around the corner on the north route services which are busy from Stratford before they are joined at Poplar with those interchanging from the east route services. Poplar is severed from Canary Wharf by Aspen Way and the DLR viaducts, but could be promoted as Poplar for Canary Wharf! But Canary Wharf growth is not only around the main tower, but also spreading west, south and east, and is only restricted to the north by Aspen Way.

Access to the City: There are currently challenges with the zone 1 stations. 90% of demand now goes to Bank, but only 75% of services. There are also uneven service intervals because of this. Shadwell station is limited by its narrow platform, especially with interchange traffic to and from London Overground services.

Growth on the Isle of Dogs: The route from Lewisham to Bank is already the busiest, but there are more travelling from Lewisham via Canary Wharf to Stratford to avoid zone 1. Until more trains are delivered from 2021, the DLR can only use travel demand management and tweak services to move capacity around.

A growing Stratford: Pudding Mill Lane has been built to cope, but service patterns may need to be flexed here too.

A plan for the DLR's future is being developed to help make the case for investment. The big challenge for Docklands is that growth is accelerating: the transformation of Docklands has only just begun.

QUESTIONS

What about future DLR extensions?

A lot of work was done on a branch to Dagenham, but this proposal was dropped with a change of Mayor. The current planned Overground line for Barking Riverside will cover part of this area, but the DLR proposal remains available if interest revives.

Work was once done on a route to City Thameslink and the abandoned Jubilee Line platforms at Charing Cross, but the cost was prohibitive. A DLR link to Thamesmead is a proposal of the current Mayor which is under evaluation. The alternatives of a bridge or tunnel link are being compared.

There was also a question why a single-track section remains east of Bow Church. Doubling of the line east from Pudding Mill Lane was done, but this section will be complex and expensive. The project is not currently funded in the TfL business plan.

Fare evasion is under 2%, and ticket checking will increase under the new operating contract.

John Hawkins