

**Date:** 11 April 2014

**Item 5: Managing Director's Report – Rail and Underground**

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**This paper will be considered in public**

**1 Summary**

- 1.1 The purpose of this paper is to provide commentary on the performance of Rail and Underground and present updates on the status and progress of major investment projects and items of special interest particularly in Periods 11 and 12 of 2013/14 (5 January 2014 to 1 March 2014).

**2 Recommendation**

- 2.1 **The Panel is asked to note this paper.**

**3 Rail and Underground Safety**

- 3.1 A contractor employed by Clancy Docwra died on 2 March as a result of an accident on the DLR site at Pudding Mill Lane, managed by Clancy Docwra.
- 3.2 A sub-contractor of Bam Nuttall, Ferroviai, Kier (BFK), who died on 7 March as a result of an accident on a Crossrail site managed by BFK.
- 3.3 Both these incidents are being appropriately investigated, with our full support, by the regulatory authorities concerned.

**4 London Underground (LU) Performance**

**RMT General Secretary**

- 4.1 We are sorry to report the death of Bob Crow, General Secretary of the RMT, who died on 11 March 2014.

**Industrial Relations Update**

- 4.2 Performance in Period 12 was impacted by industrial action by staff between 4 and 6 February following the changes proposed in the Fit for Future – (Stations) programme.
- 4.3 During the industrial action up to 75 per cent of Tube stations remained open. All lines, with the exception of the Waterloo & City, operated train services of varying degrees with around 50 per cent of services operating across the Tube network.
- 4.4 Up to 45 per cent of the usual number of passengers still made their journeys on the Underground and more than 90 per cent of regular Oyster customers travelled in London during the strike.

- 4.5 The DLR, Overground and Tram networks coped well with the increased level of demand, with our London Overground network carrying an additional 180,000 passengers during the strike days.
- 4.6 To keep London moving, around 1,000 licensed and trained TfL Ambassadors worked more than 2,000 shifts at LU, rail and bus stations to keep them open and provide customers with the information they needed to plan their journeys. Enhanced bus services were also operated with an additional 200 buses on key routes. Barclays Cycle Hire also saw a 50 per cent increase in journeys.
- 4.7 Positive feedback has been received from customers on how the energy and commitment of TfL Ambassadors made a huge difference to their journeys.
- 4.8 The direct financial impact of the strike was a net loss of £3.4 million to LU; this comprises a revenue loss of £5.0 million, adjusted for additional London Rail and Surface income, plus the cost of hiring additional buses (£0.5 million) offset by payments to staff on strike (£1.6 million), lower use of traction power (£0.4 million), and savings on mobile devices, communications, etc. (£0.1 million).
- 4.9 On 11 February, after 11 days of talks between LU and the RMT and TSSA unions at ACAS, LU received formal notice of the suspension of further proposed strike action for 12 and 13 February.

#### **Passenger Numbers**

- 4.10 LU demand exceeded budget by 0.7 per cent in Period 11, and would have been around 1.3 per cent higher in Period 12 had it not been for approximately 5m lost journeys as a result of the industrial action (actual 4.1 per cent worse than budget). Year-on-year growth for the periods was around 4.9 per cent excluding industrial action (actual 2.3 per cent). Combined Year-on-year growth for the year so far is 2.5 per cent excluding industrial action (actual 2.1 per cent) of the same time last year. When the previous year is adjusted for Games related journeys, the underlying growth equates to 3.6 per cent.

#### **Service Performance**

- 4.11 Excess journey time (EJT) was 0.16 minutes better than target in Period 11 and over 1 minute worse than target in Period 12. The percentage of scheduled train kilometres operated was 0.9 per cent better than target in Period 11 and 4.7 per cent worse than target in Period 12. Excluding the impacts of the industrial action, an EJT of 5.12 minutes would have been recorded in Period 12, 0.44 minutes better than target whilst the percentage of scheduled train kilometres operated would have exceeded its target by 0.8 per cent.
- 4.12 Service Reliability, as measured in Lost Customer Hours (LCH), was 1.5m in Period 11, over 13 per better than target. In Period 12, 4.9m LCH were recorded, over 3m higher than target. Approximately 3.5m of the 4.9m LCH reported were as a result of the industrial action. Excluding the affects of this, the target would have been bettered by 16.7 per cent in Period 12.
- 4.13 The Moving Annual Total Accidental Major Injury Rate for Customers and Operational Staff was stable in Periods 11 and 12 at 0.28 Major Injuries per million hours on LU Infrastructure. There were 15 Customer Major Injuries (CMIs) and 1 Major Injury to a member of Operational Staff during the two periods. This is below the average of 11.4 CMIs per period in the first 10 periods of 2013/14. Safety awareness campaigns using both PA announcements and safety posters at stations continue to further improve performance.

- 4.14 LU's operations team continues to put significant focus into getting a quicker, more comprehensive and common approach to reporting on all incidents. This has been backed up by driving the 'Go, Look, See' process to engage line management in understanding where changes can be made and in challenging past norms. Where accidents occur, the site is visited and recommendations are agreed by the local management with assistance from the Safety managers. Those recommendations are then implemented, making the LU environment safer for staff and customers alike. The observations and actions of our staff are vital if we are to continue improving in this area, which is why all staff in Assets and Operations attend weekly "Safety Hour" sessions which aim to enhance their understanding of their role in resolving current safety issues. The reduction in incidents demonstrates that the changes in the COO focus are having a positive effect.

## **5 London Rail (LR) Performance**

### **London Overground (LO)**

- 5.1 Operational performance continues to improve, despite the poor weather, with LO returning to its position as Britain's best performing train operator in Period 12 with a PPM of 96.8%.
- 5.2 LO passenger journeys, totalling 21.1 million through Periods 11 and 12, were 4.5 per cent better than budget and 0.9 per cent higher than the same period last year. LO experienced its two busiest days on record during the LUL industrial action. Approximately 180,000 additional passengers were carried over the strike. Year to date passenger journeys show an 11.2 per cent increase over last year.

### **Docklands Light Railway (DLR)**

- 5.3 The percentage of scheduled departures was 0.8 per cent ahead of target at 99.0 per cent. 16.1 million passenger journeys were made during Periods 11 and 12 which is 3.5 per cent better than budget and 8.4 per cent higher than last year. Year to date performance is in line with last year.

### **Trams**

- 5.4 The percentage of scheduled kilometres operated was one per cent above target. Tram passenger journeys, at 4.9 million for Periods 11 and 12, are 3.2 better than budget and 4.3 per cent higher than the same period last year during which ridership was depressed by a period of snow. Year-on-year growth for the year so far is 2.7 per cent.

### **Emirates Air Line (EAL)**

- 5.5 Operational availability was 94.0 per cent in Period 11, missing target by 2.5 per cent as a result of storm related closures. Availability in Period 12 was further impacted by high winds, particularly in the first two weeks of the period. Availability dipped to 80.8 per cent (15.7 per cent lower than target). No controllable downtime was recorded during either period.
- 5.6 Over 152,000 passenger journeys were made during Periods 11 and 12 which is 19.7 per cent better than budget. Despite the wind, Period 12 passenger journeys were encouraging at almost 85,000, their highest level since Period 8. Year to date passenger journeys remain marginally below target.

## **6 Capital Programmes**

### **Sub Surface Railway**

- 6.1 The District line between Wimbledon and Edgware Road was successfully brought into passenger service for S stock on target on the 7 February 2014 and four S7s trains replaced C Stock in service on 24 February 2014.
- 6.2 The last C Stock will operate on the Heritage Run of 29 June 2014, and be removed from service on the following day. This will complete the programme's early achievement of the DfT milestone to complete the roll out of S Stock on the Hammersmith & City and Circle lines in 2014.
- 6.3 Following modification of the train software, interim regenerative braking is now in operation on 17 trains on the Metropolitan line north of Finchley Road. This innovative technology reduces London Underground's use of electricity by recycling energy used by braking in to traction power.
- 6.4 Responses to the Pre-Qualification Questionnaire (PQQ) for the re-letting of the Automatic Train Control (ATC) signalling supply contract have been received from two suppliers.
- 6.5 The fleet reliability programme will focus on S Stock enhancements. Ten key areas for improvement have been identified including the OPO system, Traction Brake Controller, door systems and train operator seats. Each has its own improvement plan and associated reliability growth path, the first of which will deliver a reliability improvement of approximately 1,500 kilometres to the Mean Distance Between Failures measure from the beginning of the current financial year, 2014/15.

### **Northern Line Upgrade**

- 6.6 The reliability of the new signalling system on the High Barnet branch continues to exceed target with only around five minutes of delay per day.
- 6.7 The new signalling system was successfully brought in to revenue service in the Euston to Angel and Charing Cross to Kennington areas on 18 January, seven months ahead of schedule. Reliability has subsequently also been very good.
- 6.8 Oval to Morden commenced revenue service on 22 March, seven months ahead of the base line programme. As with the other areas, early reliability on this stretch of the line is encouraging.
- 6.9 On the Edgware Branch the first system testing weekend took place on 22 and 23 February. Modifications to address a depot points issue at Golders Green were commissioned and are working well. System testing in the area progressed to allow Maturity Level 3 (ML3) multi-train system testing (TBTC protecting multiple trains on the line). The commissioning of the Edgware Branch remains on target for Easter 2014.

### **Northern Line Extension (NLE)**

- 6.10 The final elements of ground investigation works have commenced across various sites along the route. These additional boreholes will help further de-risk the final design of the NLE.
- 6.11 A more collaborative approach is evident from Battersea Power Station Development Company and this is allowing better progress to be made on shared items of interest such as jetty use, construction logistics, utility diversions and the

interaction of the proposed over site development at Battersea. Progress has been made with both Thames Tideway Tunnel and River Light development, with the parties showing genuine progress in dealing with temporary and long term power supply issues.

- 6.12 The Request for Information (RFI) period for the bidders came to conclusion, with all queries responded to within the 48 hour timescale. The relatively small number of RFIs gives some indication of the quality of the Invitation To Tender (ITT) and the early contractor involvement which preceded it.

### **New Tube for London (NTfL)**

- 6.13 Funding submission for the next 24 months received TfL Board approval on 5 February. Mobilisation for the NTfL design and specification phase continued in Period 12.
- 6.14 Work-stream activities being progressed in Period 13 include; inverting substation civil works; unattended train operation obstacle detection trials; hybrid air cooling design.

### **Major Station Improvements**

#### **Bank Station Capacity**

- 6.15 The planning application for the over-site development has been submitted to the City of London and the design freeze, ahead of the Transport and Works Act Order submission process, has been achieved.
- 6.16 An objection letter has been received from the new owners of 33 King William Street opposing the proposed worksite in Arthur Street. The project team have formally responded to the letter and a meeting with the owners took place on 4 April. The outcome of this meeting is awaited.
- 6.17 The PAS 55 audit has been completed in the period and Independent Investment Programme Advisory Group (IIPAG) interviews have also taken place.

#### **Victoria Station Upgrade**

- 6.18 South ticket hall piling is now fully complete, following demobilisation of the contractor and removal of the rig and crane from site. Around 95 per cent of the jet grouting columns have now been installed.
- 6.19 At the North Ticket Hall the second concrete pour for the roof slab has been successfully completed.
- 6.20 Following the concrete spill into the Signal Equipment Room (SER) on 23 January, tunnelling work has been suspended and will not recommence until signalling equipment has been temporarily relocated and the north wall in the SER has been reinstated. Reinstatement works commenced in the SER on 26 March. The incident will have no impact on the delivery date of the project.

#### **Tottenham Court Road Station**

- 6.21 The project at Tottenham Court Road continues to make progress which will see its completion ahead of the DfT milestone and within budget. Major construction work is complete and the project is now undertaking the fit-out stage. The station is taking shape, with eight new escalators currently being installed and artwork already being installed in the new ticket halls.

## **Bond Street**

- 6.22 The over-site development pre-cast column installation has been completed to the third floor and the step free access passageway has been successfully constructed over the crown of the Jubilee line southern running tunnel with no impact to service or assets.
- 6.23 Good progress has been made in negotiating access to the Crossrail compound on Park Lane to provide additional off-site storage. Cooling the Tube works have now been incorporated into the main contract works.

## **Embankment Station**

- 6.24 Under the Stations Stabilisation Project, Station refurbishment works are progressing well at Embankment station. Retiling work is being carried out on platforms behind protective barriers during traffic hours to take advantage of the Northern and Bakerloo lines non-stopping during the work, which includes the replacement of four escalators. Combining escalator replacement with Stations Stabilisation works in this way will not only provide our customers with a visibly refreshed station when it reopens in November, but will also save £2.4m of cost that would have been incurred had the works been scheduled separately.

## **Infrastructure Renewals (Track)**

- 6.25 The Track Delivery Unit (TDU) utilised both engineering hours and two opportunity possessions to deliver 25 kilometres of rail grinding in Period 12 under the Rail Defect Reduction Project.
- 6.26 To date over 116 kilometres of track has been ground since commencement of project works in October 2013. The project remains ahead of programme.
- 6.27 Two grinding machines (new to London Underground) arrived in London in early March. The final 'plant' approval process continues, with a target of bringing the machines into use by the end of March 2014. These will increase TDU grinding capacity enabling a further increase in productivity.
- 6.28 TDU teams exceeded their planned period targets delivering 551metres (11 metres above revised plan) of Deep Tube Renewal (DTR) last period.
- 6.29 The Track Partnership delivered 2.6 kilometres of Ballasted Track Renewal (BTR) in the period and in doing so made quarter four the most productive quarter this year in terms of BTR meterage achieved.
- 6.30 In excess of 1.5 kilometres of track drainage renewal was achieved (including overnight mid-week works on both the Central and Metropolitan lines) which exceeded the baseline programme by 500 metres.

## **London Overground Capacity Improvement Programme**

- 6.31 Management of operational requirements at New Cross Gate depot and detailed weekly MD level contractor reviews are maintaining the forecast to deliver operational go-live at Silwood Sidings to the original schedule of 18 May.
- 6.32 Successful design reviews during Period 12 have confirmed the final track alignment for Silwood and enabled key designs to be issued for review.
- 6.33 The Silwood train cleaner accommodation block has been assembled on site and the utility connections are now underway. Work is progressing on drainage, troughing, walkways and final permanent way installation.

- 6.34 High voltage cabling has been run between the Canal Junction substation and Silwood providing traction current to the new sidings.
- 6.35 At New Cross Gate Depot, external piling is complete on the Maintenance Facility Building and the existing retaining wall is being demolished. Work has now commenced within the Maintenance Facility Building alongside normal train maintenance activities.
- 6.36 Works have commenced on platform extensions at Hoxton, Haggerston, Acton Central and South Acton stations.

### **DLR Twin-Tracking**

- 6.37 The DLR project is progressing well with the main wall now complete and approximately one third of the wall has been backfilled.
- 6.38 Placing of temporary works king piles to facilitate construction of the abutment at the east end of the site still has to be completed. Following the fatality, reported in paragraph 3.1 above, during the extraction of the king post piles no further works took place during the week commencing 3 March 2014.
- 6.39 Backfilling behind the wall will re-commence, although works in the area cordoned off by the Health and Safety Executive cannot progress. Clancy Docwra has advised they wish to leave the king posts in place; hence this is one less activity to be undertaken before installation of the track can commence.
- 6.40 A factory visit to VostAlpine took place to inspect the track work and deliveries to site have been arranged to commence mid March 2014. Installation of the on track drainage will commence on 23 March 2014.
- 6.41 Possession meetings are taking place with Crossrail to agree arrangements about cutting the trackside cabling, etc, at the beginning of the possession.

### **Tramlink**

- 6.42 A letter of intent has been issued to Cleshar Contract Services for infrastructure works on the Wimbledon Enhancement Programme.
- 6.43 The Asset Protection Agreement has been submitted to Network Rail approval.
- 6.44 Vegetation removal to support the twin tracking has been completed without any stakeholder complaints.
- 6.45 Delays to Network Rail's High voltage cable slew design and diversions at Platform 10 are scheduled to be recovered prior to the commencement of Tramlink works on the platform.
- 6.46 The programme for the additional trams with Stadler continues to progress as scheduled.

## **7 Other Items of Note**

### **Workshops to help reduce suicides on the network**

- 7.1 London Underground sees a number of attempted suicides across its network every year. Each of these tragic events can have a negative impact on the members of staff who have to deal with the incident. They also result in severe delays to our customers.

- 7.2 To help equip staff with the skills to identify vulnerable people and give them the confidence to intervene if necessary, one-day workshops delivered by the Samaritans have been arranged. There has been some excellent feedback on these courses which have already been run successfully with the British Transport Police, the Department of Health and HM Prison Service.

### **Improving customer choice for paying for travel on our services**

- 7.3 Contactless payment - where a debit or credit card is placed on an electronic reader to pay for transactions up to £20 - has already been introduced into a number of major retailers and on London's buses.
- 7.4 Later this year customers will be able to pay for their 'pay as you go' travel across the network in the same way by placing their debit or credit card on the yellow reader, as they would with Oyster.
- 7.5 The same adult-rate pay as you go fares will be charged as on Oyster, and just like Oyster, customers will need to touch in and touch out. This is the biggest change to ticketing since Oyster was introduced in 2002, and the system requires thorough testing to ensure the public launch goes smoothly.
- 7.6 Feedback on the experience of using contactless payment will be an important part of this process. Up to 5,000 people are involved in a contactless card trial. Some of these are staff in frontline roles who respond directly to customer queries.

### **Bins help to cut disruption**

- 7.7 Disruption to customers caused by litter on the Tube has been cut by almost a fifth in the last year.
- 7.8 A large part of this success is down to the Bin Installation Programme, which has seen over 125 litter bins and signage installed at 36 stations. All Tube stations will have bins by 2015. These bins, along with the great support received from station staff, have helped remove some of the litter from trains, tracks and platforms that may otherwise have caused delays.

The ongoing Better Behaviours campaign, which encourages customers to play their part in keeping the Tube free of litter, is also helping to reduce disruption, as objects stuck in train doors or on the track are the biggest causes of litter-based delays on the network.

### **London Transport Awards**

- 7.9 London Underground and London Overground won several awards at this year's London Transport Awards held in early March at the Park Plaza Riverbank in London.
- 7.10 The awards celebrate excellence in transport across the Capital, rewarding innovation and progress for transport initiatives in keeping London moving.
- 7.11 Ickenham station won LU Customer Service Team of the year.
- 7.12 London Overground (alongside Network Rail and Southwest Trains) won Station of the Year for Clapham Junction for joining the East and West London lines for the first time ever.
- 7.13 The LU Track Partnership (LU & Balfour Beatty) won the Most Innovative Transport Project.



## **UK Rail Industry Award (UKRIA)**

- 7.14 The LU Apprenticeship Development team has received the Apprenticeship Development Scheme Award at the UKRIA. The team was a joint winner of the award with Network Rail.
- 7.15 The UKRIA are a key event for the UK rail industry, recognising the achievement of organisations, teams and individuals working to deliver an efficient and robust rail network.
- 7.16 LU was also shortlisted in six other categories, including:
- (a) Cost Base Reduction: The Bank Station Capacity Upgrade for the Innovative Contractor Engagement
  - (b) Outstanding Projects – Small (under £3m): Track Delivery Unit for St Paul's Hub.
  - (c) Outstanding Projects – Medium (£3m-20m): Track Partnership for their work on Hainault blockade
  - (d) Recruitment Excellence: The Classroom to Boardroom scheme.
  - (e) Signalling & Telecommunications: The Loop Cable team.

## **Success at the Golden Whistles**

- 7.17 London Underground picked up a number of important industry awards at the Institute of Rail Operators' annual awards ceremony held on 24 January.
- 7.18 LU's Heritage Operations team, represented at the ceremony by Technical Services Manager Dave Brabham, collected a special award recognising LU's efforts over the last year in the area of heritage operations with particular reference to LU's 150 anniversary and the operation of steam on the Sub Surface Railway.

## **Lean Transformation Programme wins award**

- 7.19 London Underground's Lean Transformation Programme (LTP) has won the Best People Strategy Award at the Railway People HR, Recruitment & Skills Awards. The Railway People HR, Recruitment & Skills Awards recognise the excellent work carried out by the best talent in rail HR and training.
- 7.20 In addition to delivering Lean skills, the LTP team took the opportunity to promote cultural change in the programme by removing as many barriers to success as possible. Lean allows staff to identify and challenge waste and make immediate and positive changes to daily processes.

## **HR Distinction Awards**

- 7.21 HR Director Tricia Riley was named HR Director of the Year at the prestigious national HR Distinction Awards. The awards celebrate the outstanding contribution that innovative HR strategies make to business performance.
- 7.22 They cover all industries and businesses throughout the UK and recognise the individual who has demonstrated the most outstanding leadership at executive level. Tricia faced tough competition from other HR professionals in the fields of technology, retail, banking, and transport.
- 7.23 The judges praised her role in leading the successful implementation of a people strategy that contributed to the achievement of organisational objectives, and the creation of a culture in which people issues are at the heart of every important business decision.






**List of appendices to this report:**

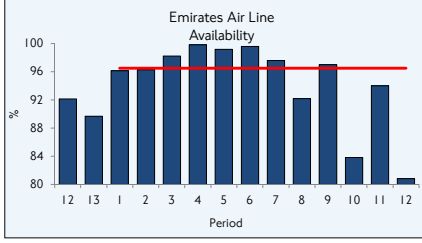
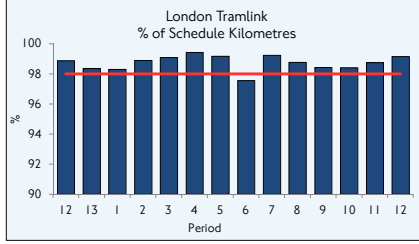
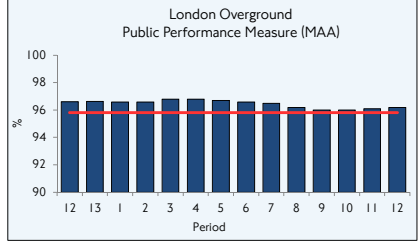
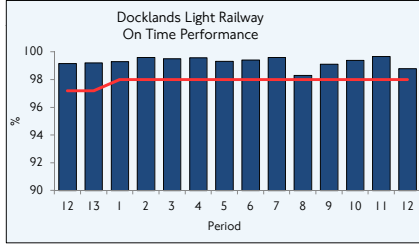
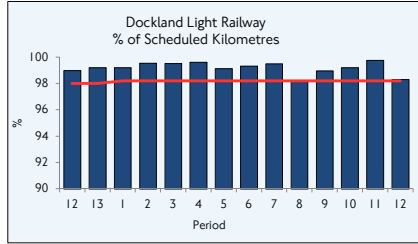
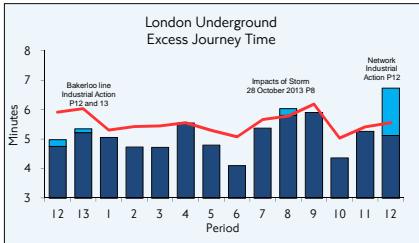
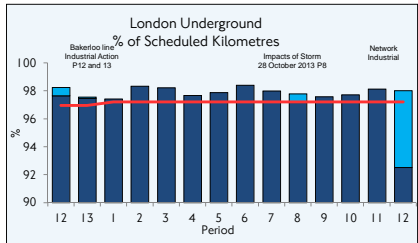
Appendix 1: Period 12 Performance

**List of Background Papers:**

None

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London Rail and Underground					
Service Reliability - Period 12 2013/14					
			YTD		YTD Variance
 <b>London Underground</b>	% of Scheduled Kilometres	%	97.4	●	0.2
	Excess Journey Time	Minutes	5.22	●	0.26
 <b>Docklands Light Railway</b>	% of Scheduled Kilometres	%	99.2	●	1.0
	On Time Performance	%	99.3	●	1.3
 <b>London Overground</b>	Public Performance Measure (MAA)	%	96.2	●	0.4
 <b>London Tramlink</b>	% of Scheduled Kilometres	%	98.8	●	0.8
 <b>Emirates Air Line</b>	Availability	%	94.6	■	-1.9




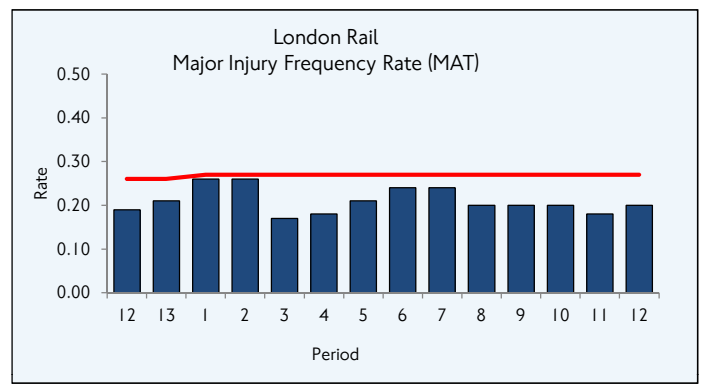
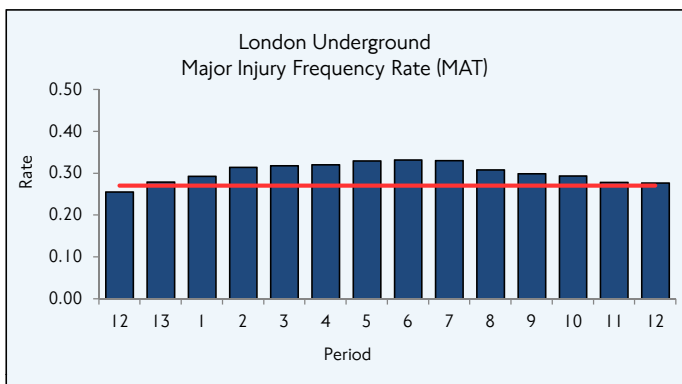
	Actual		LU Industrial Action / Storm		Target
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- Meeting or better than target
- ▲ Worse than target but within defined tolerance: 2% for Excess Journey Time, 1 percentage point for all others
- Worse than target and outside defined tolerance

London Underground performance remained above target for both % of Scheduled Kilometres and Excess Journey Time despite the stormy weather in period 8 and the Industrial Action by operational staff in period 12. EAL availability in period 12, at 80.8% dipped to its lowest level on record with all the downtime recorded being weather related. High gusting winds severely impacted during the first half of the period, particularly in week 2 when availability was 55%.

**London Rail and Underground**  
**Safety Performance - Period 12 2013/14**






			<i>Actual</i>	<i>Target</i>		<i>Variance</i>
 London Underground	Major Injury Frequency Rate (MAT)	Rate	0.28	0.27	■	(0.01)
London Rail	London Rail Safety Indicator	Rate	0.20	0.27	●	0.07

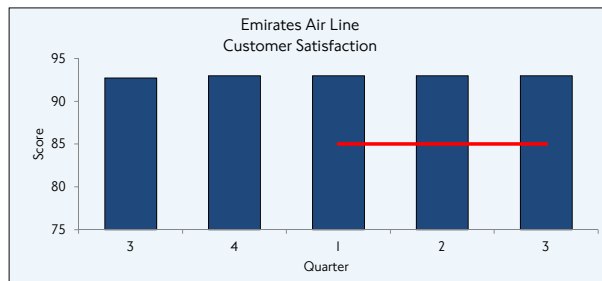
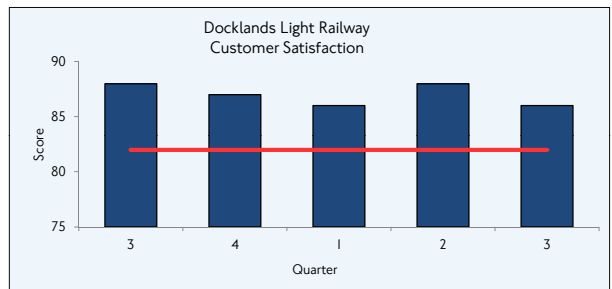


- Meeting or better than target
- ▲ Worse than target but within defined tolerance: 5% for Major Injury Frequency Rate (MAT)
- Worse than target and outside defined tolerance






The Moving Annual Total Accidental Major Injury Rate for Customers and Operational Staff was stable in Periods 11 and 12 at 0.28 Major Injuries per million hours on LU Infrastructure. There were 15 Customer Major Injuries (CMIs) and 1 Major Injury to a member of Operational Staff during the two periods. This is below the average of 11.4 CMIs per period in the first 10 periods of 2013/14. Safety awareness campaigns using both PA announcements and safety posters at stations continue to further improve performance.

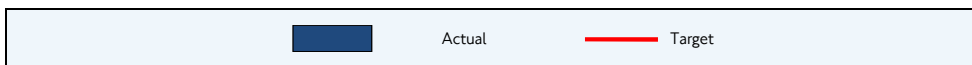
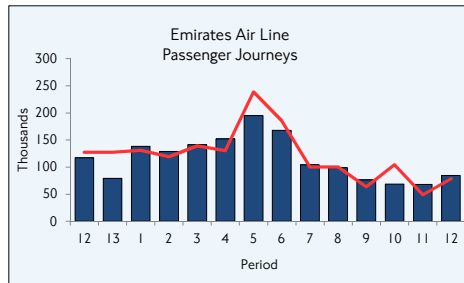
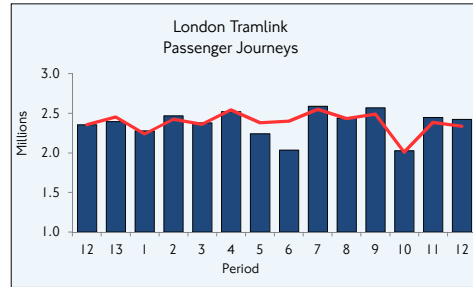
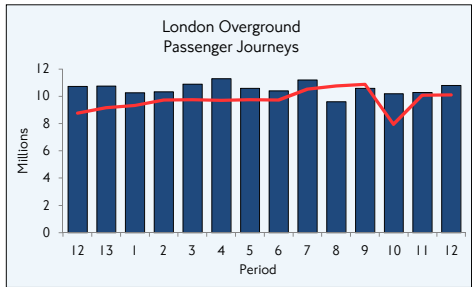
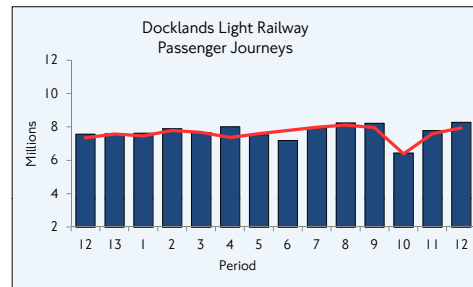
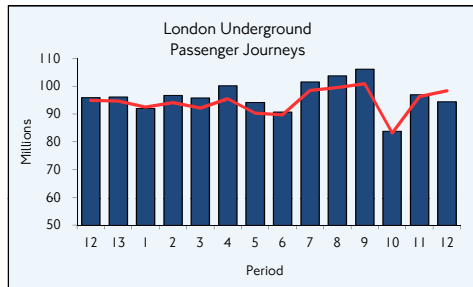
LU's Chief Operating Office (COO) continues to put significant focus into getting a quicker, more comprehensive and common approach to reporting on all incidents. This has been backed up by driving the 'Go, Look, See' process to engage line management in understanding where changes can be made and in challenging past norms. Where accidents occur, the site is visited and recommendations are agreed by the local management with assistance from the Safety managers; actions are tracked against threshold and long term action put in place to prevent reoccurrence. Staff engagement has been developed through the requirement that all staff in both Assets and Operations attend a weekly 'Safety Hour'. A reduction in incidents demonstrates that the changes in the COO focus are having a positive effect.

London Rail and Underground								
Customer Performance - Period I2 2012/13								
			Quarter 3 2013/14		2013/14 Target	YTD		YTD Variance
 London Underground	Customer Satisfaction	Score	82	●	81	82	●	1
 Docklands Light Railway	Customer Satisfaction	Score	86	●	82	87	●	5
 London Overground	Customer Satisfaction	Score	80	●	80	82	●	2
 London Tramlink	Customer Satisfaction	Score	89	●	86	89	●	3
 Emirates Air Line	Customer Satisfaction	Score	93	●	85	93	●	8



- Meeting or better than target
- ▲ Worse than target by up to 2 points
- Worse than target by more than 2 points

London Rail and Underground Customer Demand - Period 12 2013/14					
			YTD		YTD Variance
 London Underground	Passenger Journeys	Million	1157.1	●	25.7
 Docklands Light Railway	Passenger Journeys	Million	92.9	●	1.3
 London Overground	Passenger Journeys	Million	126.5	●	8.2
 London Tramlink	Passenger Journeys	Million	28.4	▲	(0.1)
 Emirates Air Line	Passenger Numbers	Thousand	1424.2	▲	(15.7)

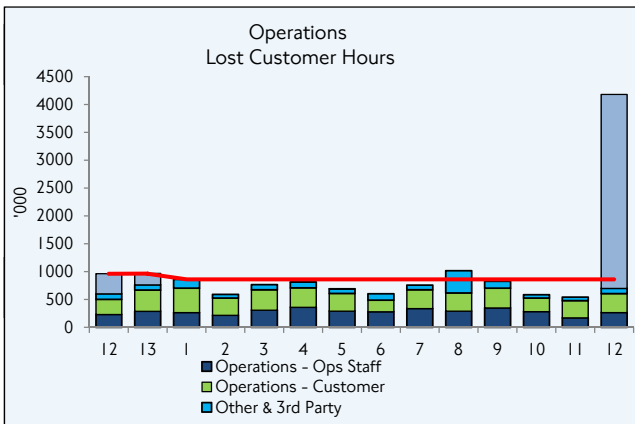
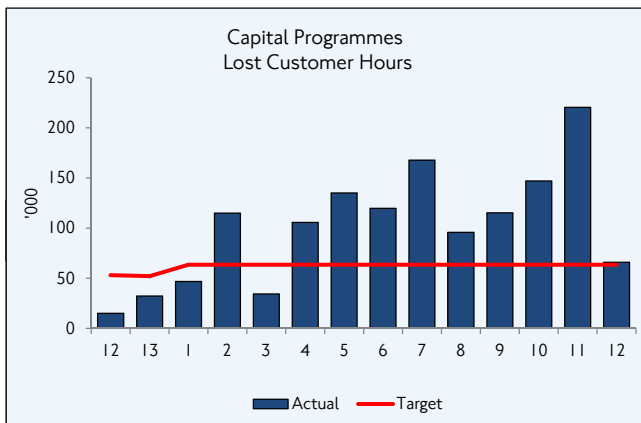
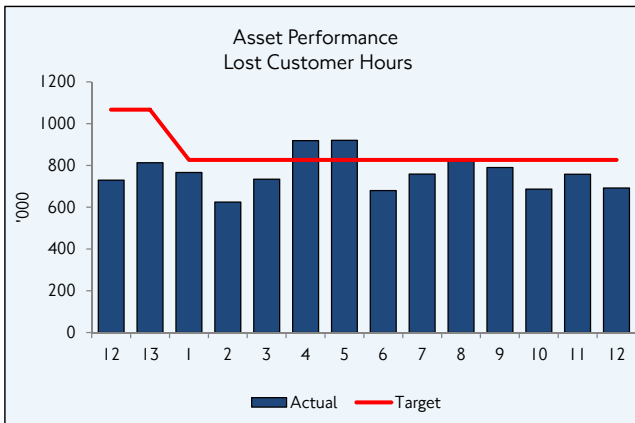


- Meeting or better than target
- ▲ Worse than target by up to 2%
- Worse than target by more than 2%

Passenger Journeys for London Underground, Docklands Light Railway and London Overground were ahead of target for the year to date. London Tramlink narrowly missed its year to date target due to a 10 day closure of the Croydon Loop for track replacement in period 6. The number of passengers carried by the Emirates Air Line has been impacted by adverse weather since period 10, but passenger numbers in period 12 were at their highest level since period 8.

## London Underground Lost Customer Hours - Period 12

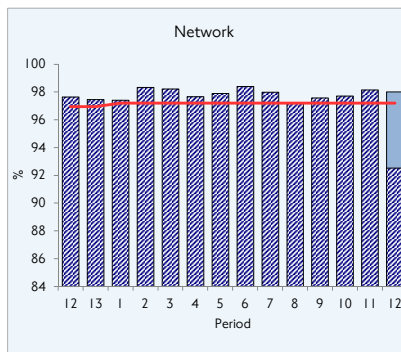
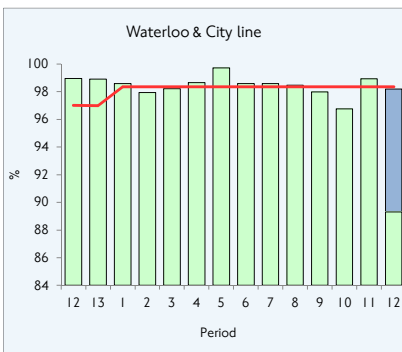
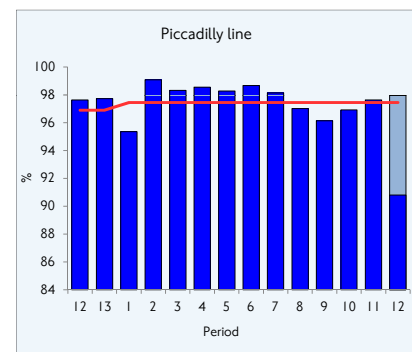
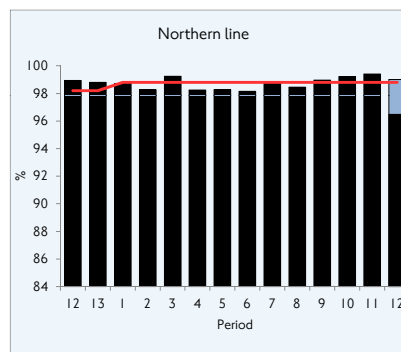
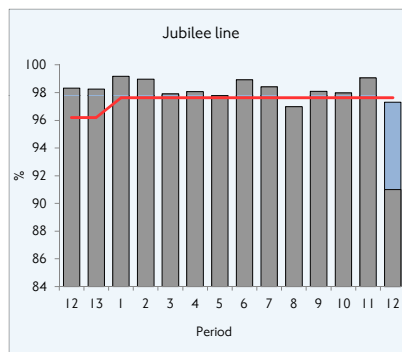
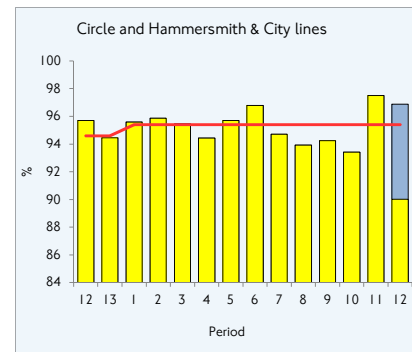
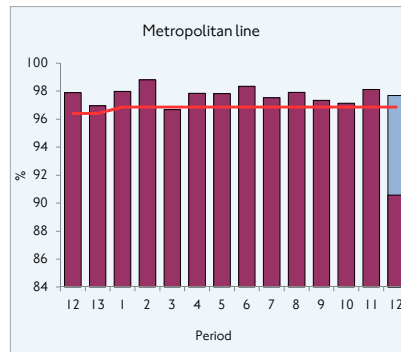
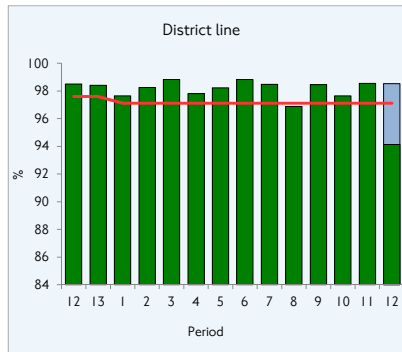
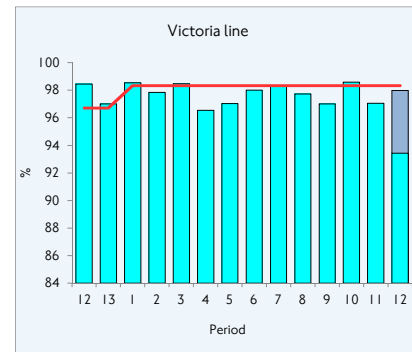
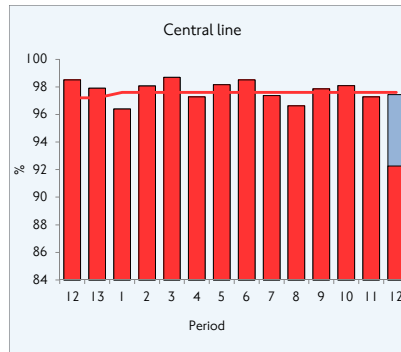
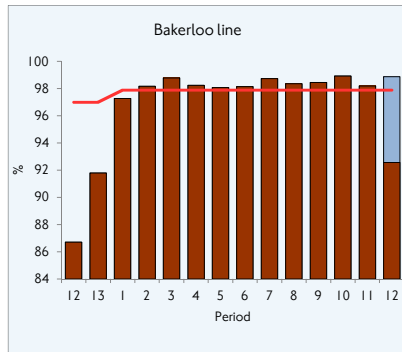
	YTD Actual '000		YTD Variance '000
Asset Performance	9,150	●	769
Capital Programmes	1,369	■	(608)
Operations	12,245	■	(1,924)
Total	22,763	■	(1,763)



Year-to-date Capital Programmes LCH behind target due to the following incidents: Period 2 Central line track circuit failure as a result of a poorly positioned chair resulting in over 87k LCH. There was also a temporary speed restriction in place at Green Park between Periods 4 and 7 to reduce the risk of platform overruns due to ATO software issues. Periods 8, 9 and 10 were worse than target due to the volume of incidents attributable to CPD, rather than a single big incident. In period 11, Victoria line services were suspended between Warren Street and Brixton on 23 January due to damage to signalling equipment at Victoria caused by concrete / water ingress from the Victoria Station Upgrade project works. This incident resulted in almost 100k LCH.

Operations LCH was impacted by Industrial Action in period 12 which caused 3.48 million LCH. As a direct consequence of this, the full year target is no longer achievable.

## London Underground Line Performance Trends Percentage of Scheduled Kilometres Operated



	Period 11	Period 12	Target
Bakerloo	98.2	92.6	97.9
Central	97.3	92.3	97.6
Victoria	97.1	93.4	98.3
District	98.6	94.1	97.1
Metropolitan	98.1	90.6	96.9
Circle & Hamm	97.5	90.0	95.4
Jubilee	99.1	91.0	97.6
Northern	99.4	96.5	98.8
Piccadilly	97.6	90.8	97.5
Waterloo & City	98.9	89.3	98.3
<b>NETWORK</b>	<b>98.1</b>	<b>92.5</b>	<b>97.2</b>

Higher percentages represent better performance

Actual (line colour)     
  Industrial Action losses     
  Target

The graphs show the percentage of scheduled kilometres operated by trains in passenger service on each line. Scheduled kilometres are the distances timetabled to be run, adjusted for planned engineering works and special events

Network Percentage of Schedule kilometres operated in period 12, at 92.5% was 4.7% below target due to the Industrial Action. Approximately 336k fewer kilometres were operated in the period as a result. Excluding the affects of this, the Network target of 97.2% would have been exceeded by 0.8% with the only lines narrowly falling short of their respective target being the Central, Victoria, Waterloo & City and Jubilee lines.

The Central line narrowly missed its Percentage of Schedule kilometres operated target in the period as a result of Train Operator shortages. Work is underway to cover all duties and balance attendance levels including annual leave, training and trade union release so as to minimise the risk of Train Operator absence.

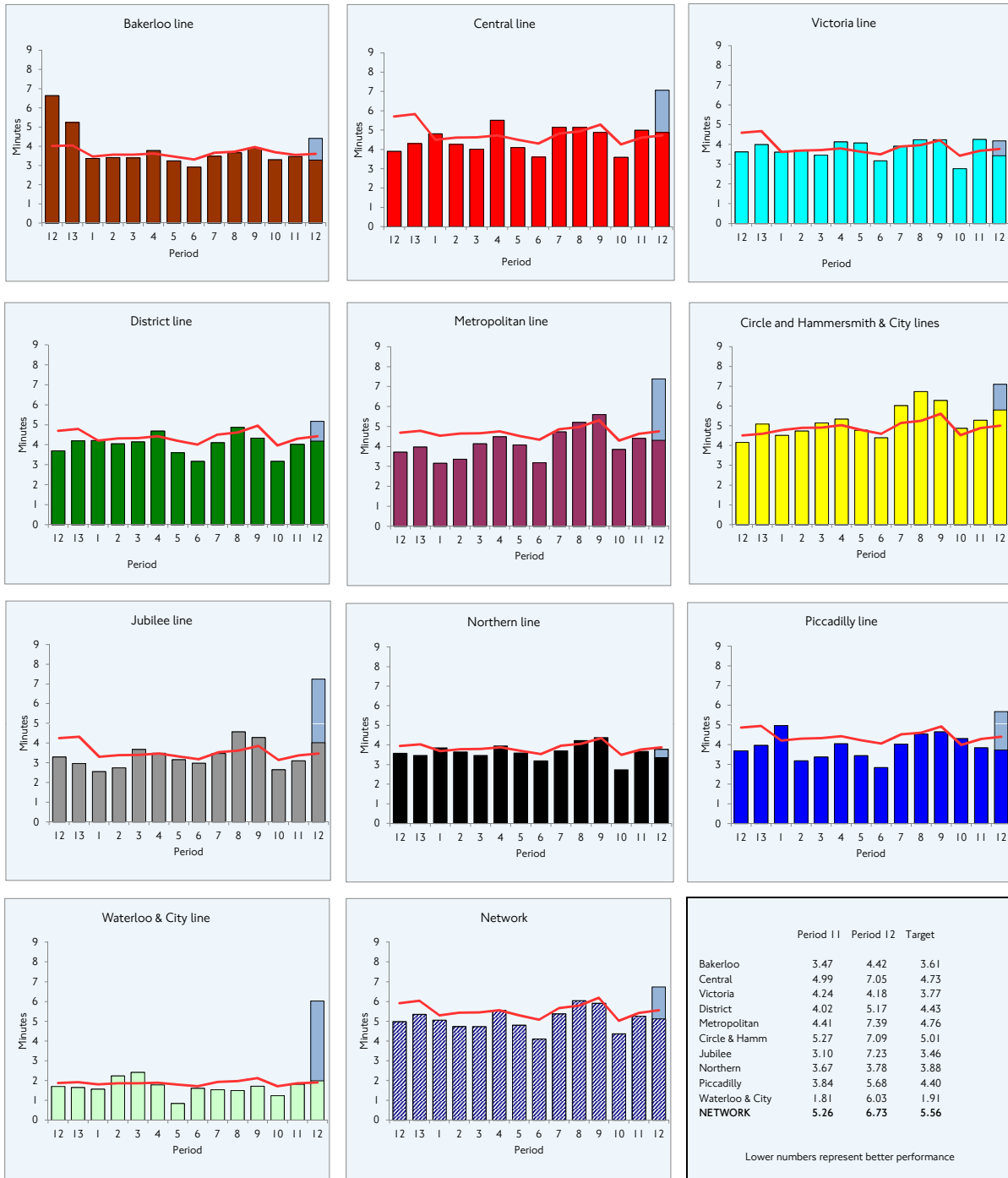
The Victoria line was also impacted also by Train Operator absence. Based on analysis, a number of additional train operators to reduce ONA's is being proposed to provide cover for unplanned absences, particularly during weekends.

The Waterloo & City operated a 4 train service during several days in the period due to defective train incidents.

In week 4 of the period, the Jubilee line was impacted by customer related incidents. A person ill on a train at West Ham, a trespass incident at Wembley Park and a person under a train incident at Finchley Road disrupted services.



## London Underground Line Performance Trends Excess Journey Time



Network excess journey time (EJT) increased by 1.47 minutes to 6.73 minutes this period due to the Industrial Action on the 4 – 6 February. The impact of this was 1.61 minutes. Excluding the Industrial Action, a Network EJT of 5.12 minutes would have been achieved, bettering the target of 5.56 minutes. After stripping out the effects of the Industrial Action, the Central, Circle & Hammersmith, Jubilee and Waterloo & City lines failed to beat their respective target.

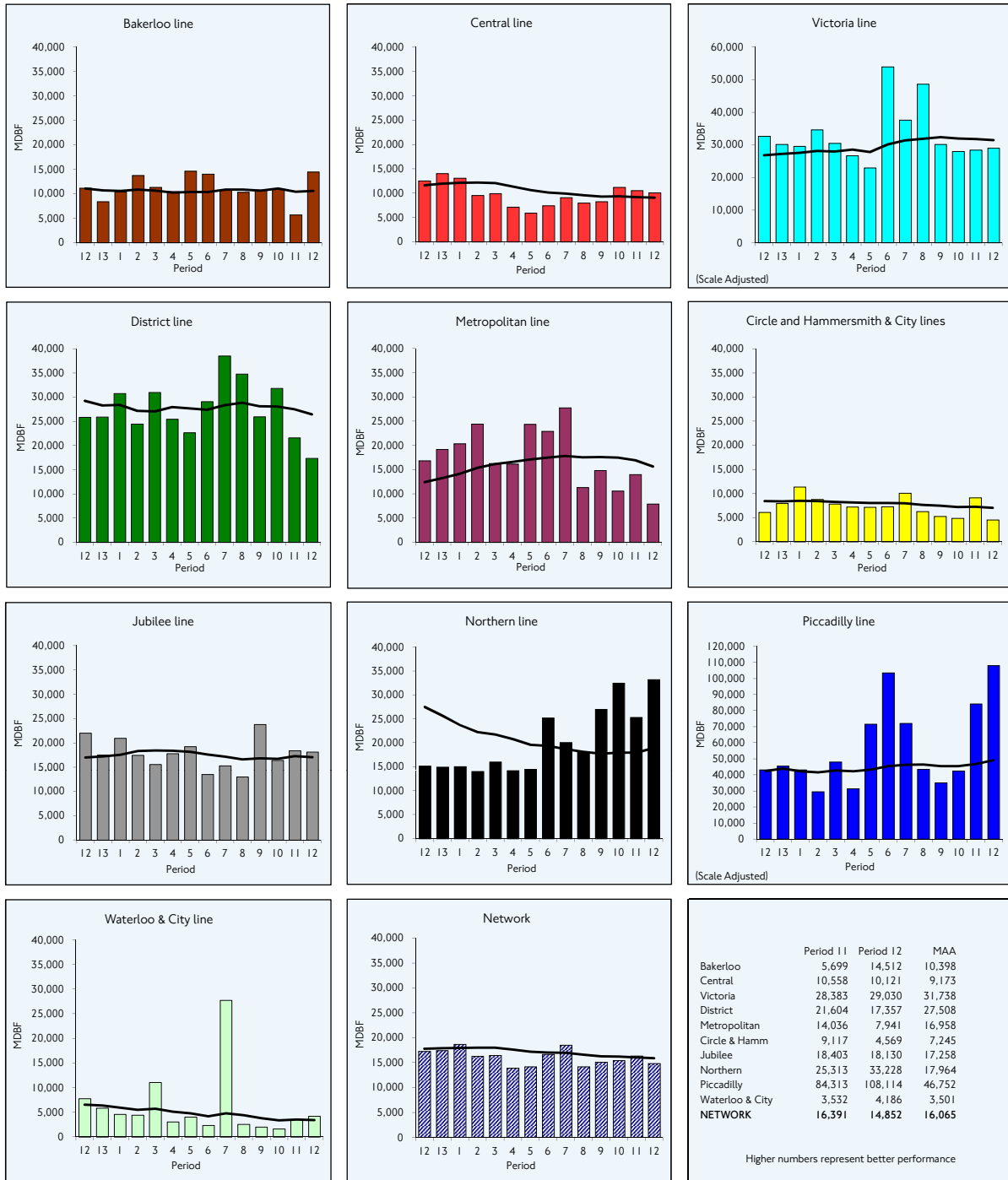
An EJT of 7.05 minutes was recorded on the Central line. Excluding the affects of the Industrial Action, the EJT was 4.88 minutes, 0.15 minutes worse than target. There was a rise in customer related incidents with several trespass and customer ill on train incidents impacting on performance. Work is underway with BT Police to minimise disruption caused by trespass incidents. There was also a rise in Train Operator absence in the period. Work is underway to cover all duties and balance attendance levels including annual leave, training and trade union release so as to minimise the risk of Train Operator absence. Actions for both trespass incidents and Train Operator absence are expected to be complete by late March.

The Circle & Hammersmith EJT of 5.79 minutes excluding the Industrial Action was 0.78 minutes worse than target. There was an increase in fleet failures and also a rise in the impact of staff absence / shortage which doubled compared with last period.

The Jubilee line recorded an EJT of 4.01 minutes excluding the Industrial Action, this being 0.56 minutes worse than target. There was an increase in the impact of fleet failures this period with one incident – a stalled train at West Hampstead in the morning peak on 14 February – accounting for 0.30 minutes of excess. There was also a threefold increase in customer related EJT, with a person ill on a train incident at West Ham resulting in disruption to the evening peak service on 25 February.

Excluding the impact of the Industrial Action, the W&C line missed its target by 0.07 minutes due to a rise in the impact of fleet failures. This included two defective trains on 18 February which accounted for 0.32 minutes of the lines EJT.

## London Underground Line Performance Trends Rolling Stock Mean Distance Between Failures (MDBF)



Where new stock is being or has been introduced, as on the Circle & Hammersmith and District lines, the MDBF trends shown reflect the combined performance of stocks as this is what is reflected in the train service performance shown earlier in this report.

Overall Network MDBF dipped compared with period 11 and also compared adversely versus the Moving Annual Average.

The Central line MDBF worsened slightly compared with last period. The improvement plan continues with detailed first and second level fault analysis now available. A weekly session with Engineering, Materials and Fleet has also been set up. The Skid design for the extra lifting road at Ruislip has been accepted and a metal prototype is under construction and due in early April.

The District line D Stock MDBF dipped slightly. There was a combination of failure modes with wheel flats being a concern. The stopped car list works is being reviewed to ensure all flats are planned in and repaired by mid March. Depot upgrade works in preparation for S stock trains is also having an impact on D stock reliability.

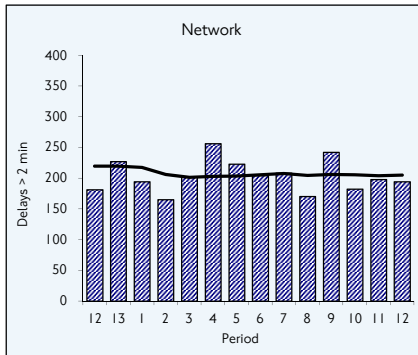
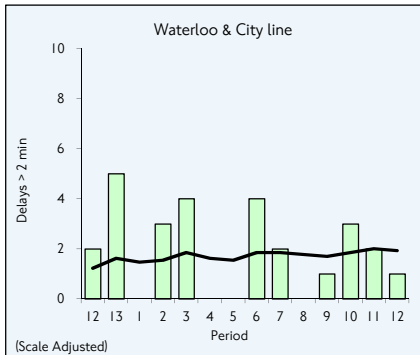
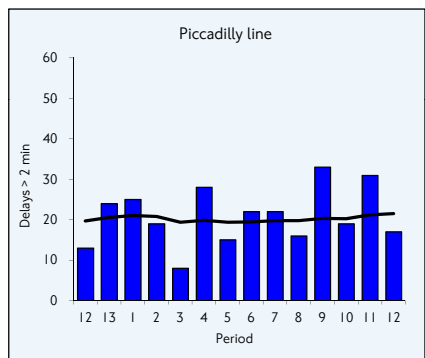
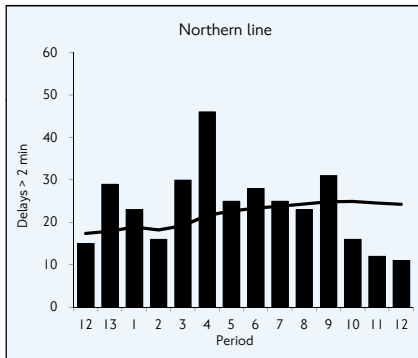
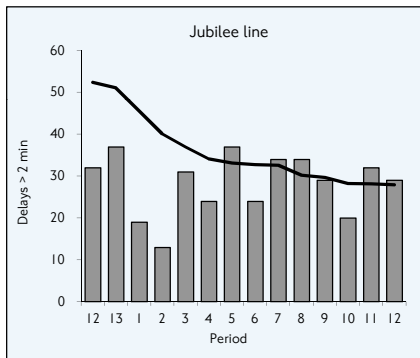
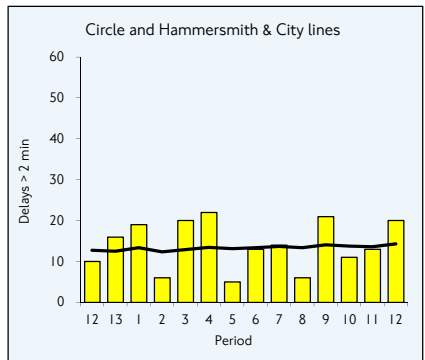
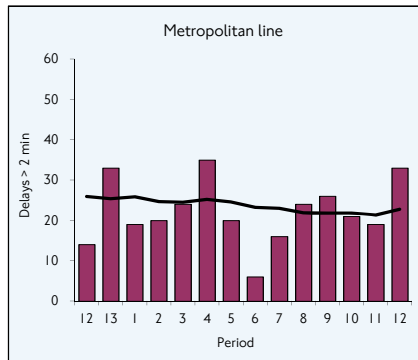
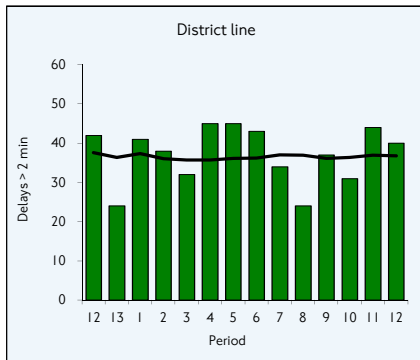
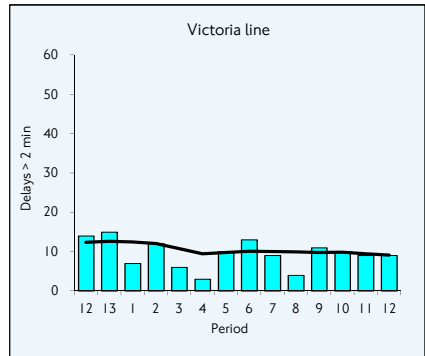
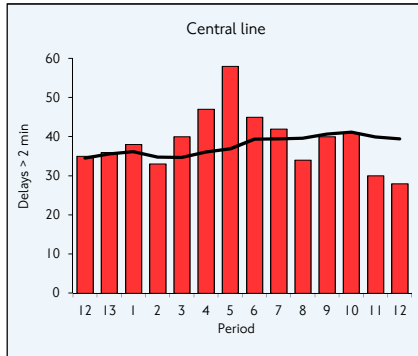
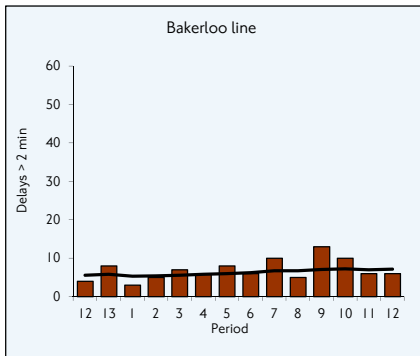
C Stock fleet on the Circle & Hammersmith and District lines continue to be phased out and replaced with the S7 stock. The least reliable C stock units are being scrapped first with a target completion date of the end of May 2014.

S Stock fleet reliability for the both the Metropolitan and Circle & Hammersmith lines continued to be affected by one person operation issues. Receiver and connection rectification works are ongoing with CPD with practical problem solving underway to reduce these faults by the end of March.

Fleet reliability on the Jubilee line was at a similar level to last period. An improvement plan remains on schedule with the 22 initiatives covering 10 systems, but water ingress led to electrical distribution failures during the first 2 weeks of the period. Short and long terms plans are in place to mitigate risk and improve reliability.

The Waterloo & City line MDBF improved with reliability work from the Central line (which operates the same fleet) also being implemented.

## London Underground Line Performance Trends Signal and Point Related Delays >2 minutes



	Period 11	Period 12	MAA
Bakerloo	6	6	7
Central	30	28	39
Victoria	9	9	9
District	44	40	37
Metropolitan	19	33	23
Circle & Hamm	13	20	14
Jubilee	32	29	28
Northern	12	11	24
Piccadilly	31	17	21
Waterloo & City	2	1	2
<b>NETWORK</b>	<b>198</b>	<b>194</b>	<b>205</b>

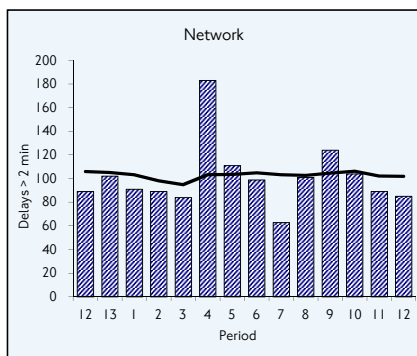
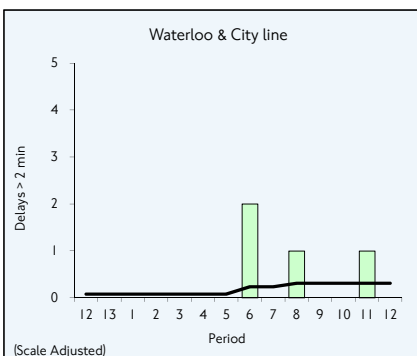
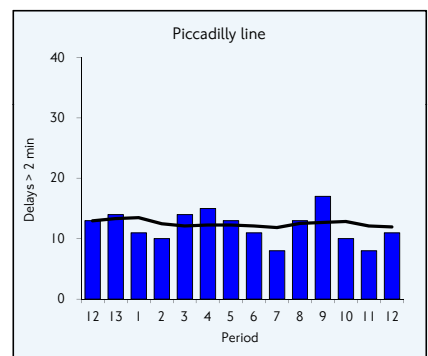
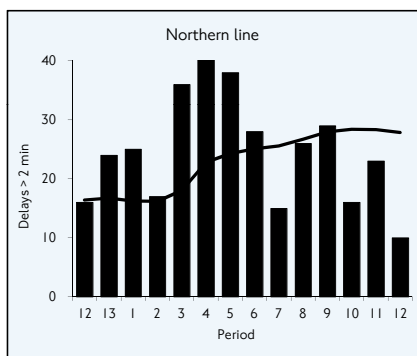
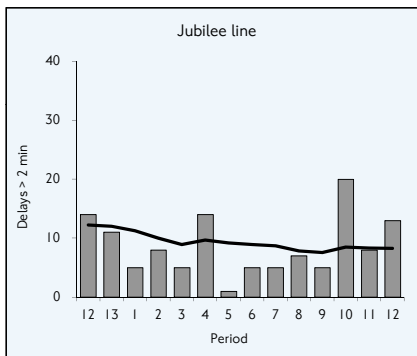
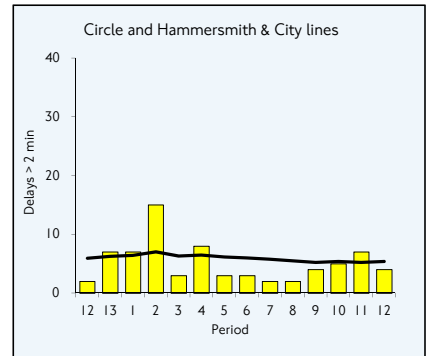
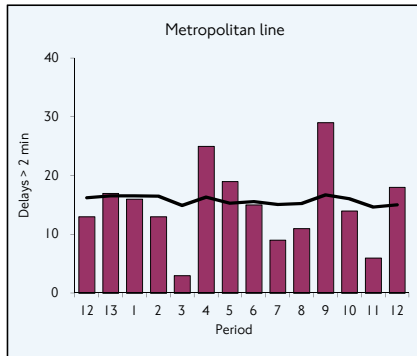
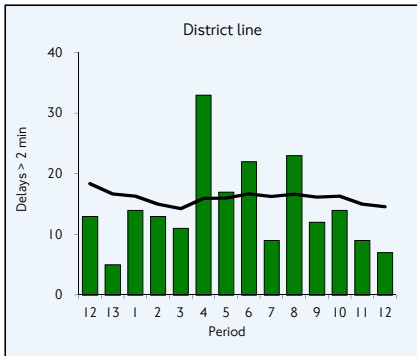
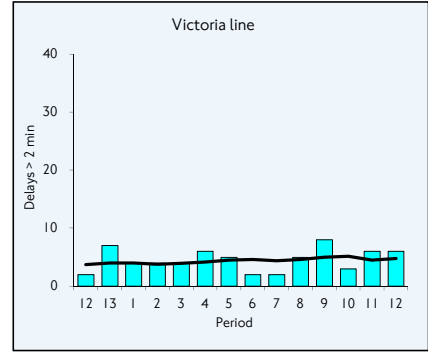
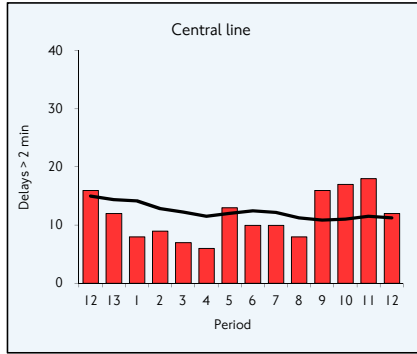
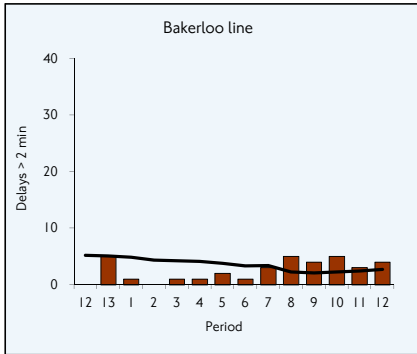
Lower numbers represent better performance

Actual
  Moving Annual Average

The number of signalling related delays fell to 194 in Period 12, and compared favourably with the MAA. The incidents were spread across the lines and consisted of train detection and describer, points indication, relay and control system defects. In terms of LCH, signal related disruption was at its lowest level for over a year. Compared with last Period, all lines with the exception of the Metropolitan and Circle & Hammersmith recorded a fall or equalled the number of signalling delays. The number of delays on the Central and Northern lines were at their lowest level for over a year.

The Metropolitan line was impacted by train detection, relay and points indication faults in the Period. The District line was also affected by train detection faults. For both the Metropolitan and District lines, intensified metal picking at critical locations continue to reduce train detection incidents. The Circle & Hammersmith line recorded 20 signal related faults (no single underlying cause) in Period 12. Despite the rise, the LCH disruption was 8k LCH, over 50% lower than last Period. The Jubilee line was affected by 29 delays in Period 12, but in terms of LCH, signal related disruption was at its lowest level since Period 2.

## London Underground Line Performance Trends Track Related Delays >2 minutes



	Period 11	Period 12	MAA
Bakerloo	3	4	3
Central	18	12	11
Victoria	6	6	5
District	9	7	15
Metropolitan	6	18	15
Circle & Hamm	7	4	5
Jubilee	8	13	8
Northern	23	10	28
Piccadilly	8	11	12
Waterloo & City	1	0	0
<b>NETWORK</b>	<b>89</b>	<b>85</b>	<b>102</b>

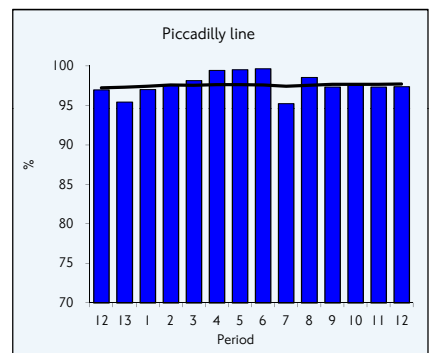
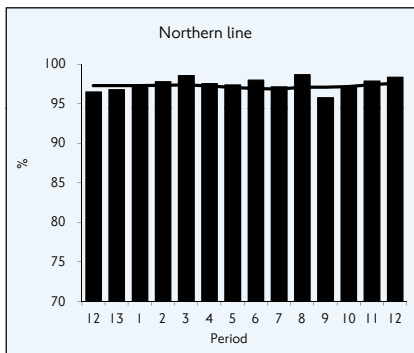
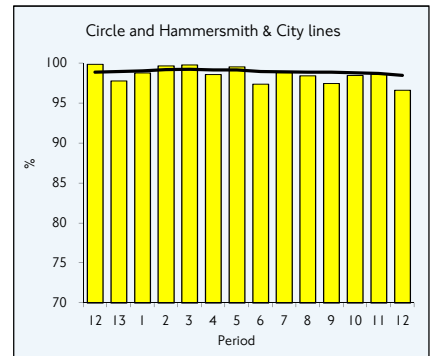
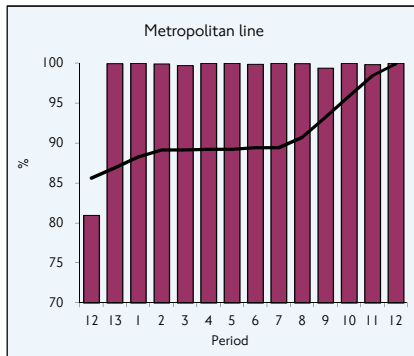
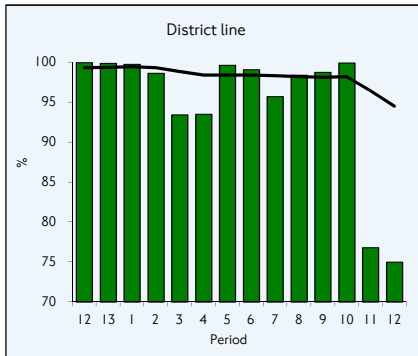
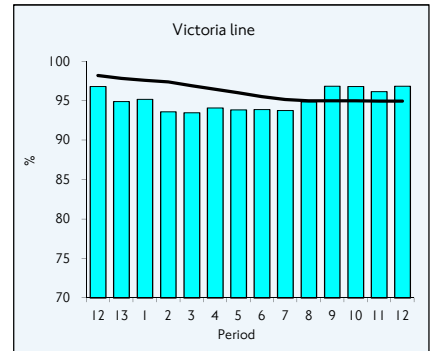
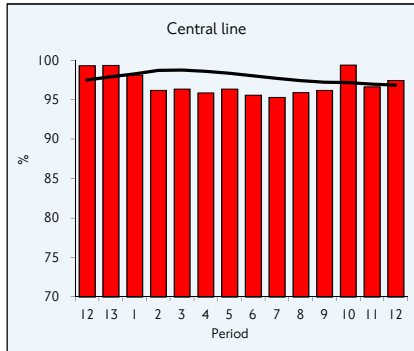
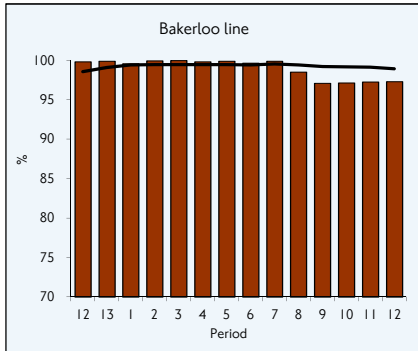
Lower numbers represent better performance

Actual
  Moving Annual Average (MAA)

The number of track related delays at 85 were at their lowest level since Period 7 and also compared favourably versus the MAA. A combination of environmental issues, plain line and junction defects caused 60% of the incidents reported this Period. The Central and Northern lines recorded a notable reduction in track related delays with the latter line at its lowest level for over a year. The District, Circle & Hammersmith and Waterloo & City lines also reported a drop in delays compared with Period 11.

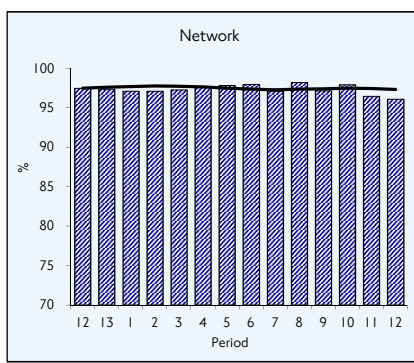
The Metropolitan line was impacted by several temporary speed restrictions being imposed over defective sections of track. The Bakerloo, Jubilee and Piccadilly lines recorded a rise in delays compared with Period 11, although there was no underlying cause.

## London Underground Line Performance Trends Escalator Availability



**Waterloo & City line**

The stations served by the Waterloo & City line are managed by the Jubilee line (Waterloo) and the Central line (Bank)



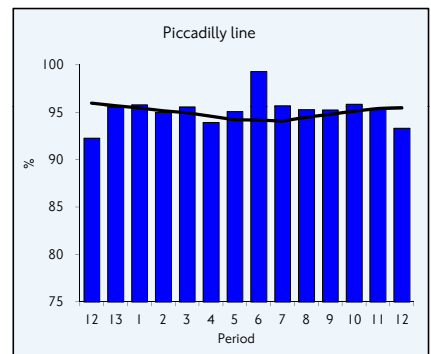
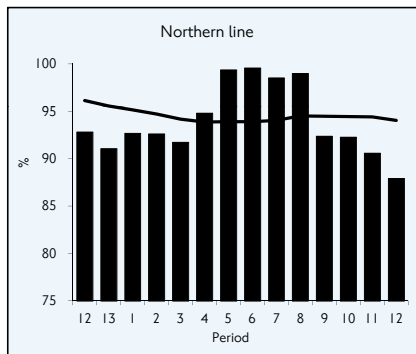
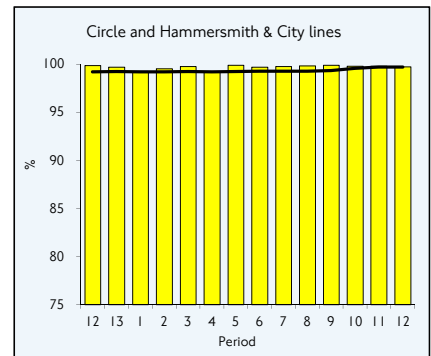
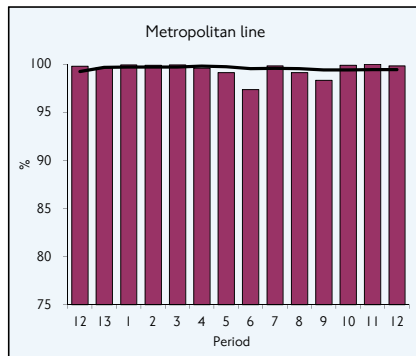
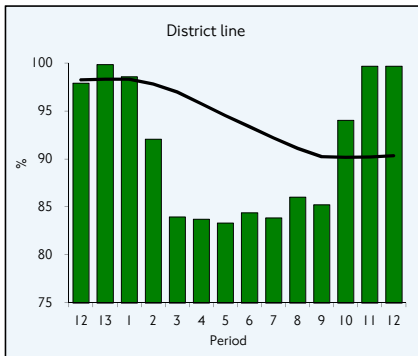
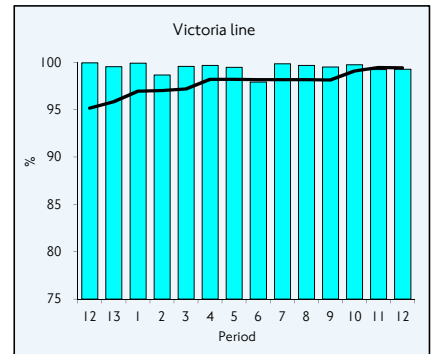
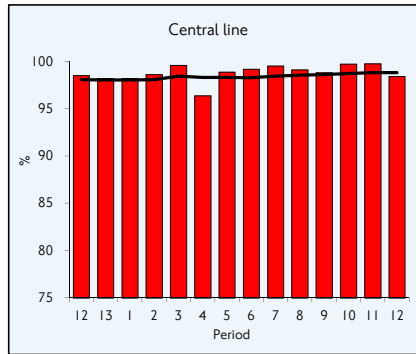
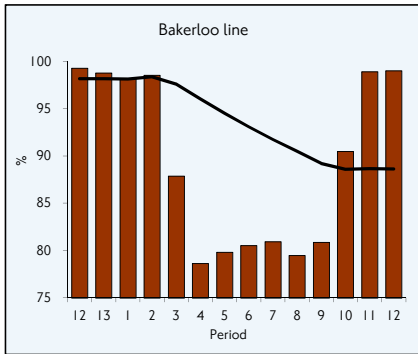
	Period 11	Period 12	MAA
Bakerloo	97.3	97.3	98.9
Central	96.7	97.5	96.8
Victoria	96.1	96.9	94.9
District	76.8	75.0	94.5
Metropolitan	99.8	100.0	99.9
Circle & Hamm	98.6	96.6	98.5
Jubilee	96.9	95.8	97.3
Northern	97.9	98.4	97.6
Piccadilly	97.3	97.4	97.7
Waterloo & City	n/a	n/a	n/a
<b>NETWORK</b>	<b>96.5</b>	<b>96.1</b>	<b>97.3</b>

Higher percentages represent better performance

Actual
  Moving Annual Average (MAA)

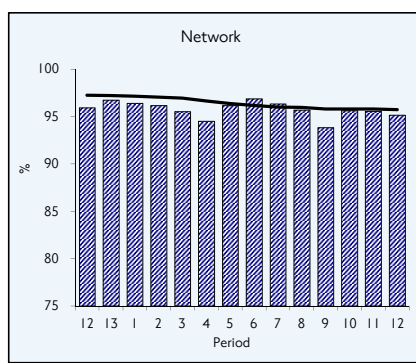
Network escalator availability dipped to 96.1% in Period 12 (99.6% excluding planned work). Following the refurbishment work at Kilburn Park escalator number 1 on the Bakerloo line (since Period 8) being completed in Period 12, works commenced on escalator number 2 with an expected completion date of late July 2014. On the Central line, brake replacement work on Holborn escalator numbers 4 and 7 was completed during the Period. Works at Blackhorse Road have impacted on Victoria line availability since Period 7. The replacement of 4 escalators at Embankment on the District line (which serve the Bakerloo and Northern line platforms) commenced on 7 January (Period 11). These works are expected to be complete in November (Period 8 2014/15). Step chain replacement works at Kings Cross began in late Period 11 and impacted on Circle & Hammersmith line escalator availability throughout Period 12. Jubilee line availability this Period was impacted by planned works at Canary Wharf, Westminster, Waterloo and West Ham. Planned works at Old Street on the Northern line and refurbishment work at Bounds Green on the Piccadilly line were completed part way in Period 12

## London Underground Line Performance Trends Lift Availability



**Waterloo & City line**

The stations served by the Waterloo & City line are managed by the Jubilee line (Waterloo) and the Central line (Bank)



	Period 11	Period 12	MAA
Bakerloo	98.9	99.0	88.6
Central	99.8	98.4	98.8
Victoria	99.2	99.3	99.4
District	99.7	99.7	90.3
Metropolitan	100.0	99.8	99.4
Circle & Hamm	99.8	99.8	99.7
Jubilee	92.1	94.0	96.7
Northern	90.6	87.9	94.0
Piccadilly	95.4	93.3	95.5
Waterloo & City	n/a	n/a	n/a
<b>NETWORK</b>	<b>95.6</b>	<b>95.1</b>	<b>95.7</b>

Higher percentages represent better performance

Actual
  Moving Annual Average (MAA)

Network lift availability dipped to 95.1% (99.4% excluding planned work).  
 The replacement of Edgware Road lifts on the Bakerloo line commenced on 6 June 2013 (Period 3) - these returned service during Period 10.  
 On the Central line, the dip in lift availability in Period 12 was as a result of failure on lift number 2 at Queensway.  
 Planned works on lifts at Waterloo, Kilburn and Canary Wharf impacted on Jubilee line availability in Period 12. On the Northern line, maintenance works at Belsize Park, Chalk Farm, Mornington Crescent and Goodge Street impacted on lift availability this Period whilst refurbishment works on 2 lifts at Hampstead (since Period 9) were completed during the Period. Refurbishment of a lift at Russell Square on the Piccadilly line has been ongoing since Period 7 (estimated completion date of end of May) whilst the replacement of lifts at Covent Garden commenced during the Period and are expected to be completed in November of this year.