

The State of the Underground

September 2011

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Transport Committee Members

Caroline Pidgeon (Chair)	Liberal Democrat
Valerie Shawcross (Deputy Chair)	Labour
Victoria Borwick	Conservative
Roger Evans	Conservative
Jenny Jones	Green
Joanne McCartney	Labour
Steve O'Connell	Conservative
Murad Qureshi	Labour
Richard Tracey	Conservative

At its meeting on 9 March 2011, the Committee agreed to undertake an investigation into the state of the London Underground with the following terms of reference:

- To explore the recent performance of the Tube and TfL's progress with the upgrade programme including for each London Underground line; and, in light of the findings
- To identify any actions that the Mayor and TfL should take to improve the performance of the Tube and the delivery of the upgrade programme.

The Committee welcomes feedback on its report. For further information, contact Laura Warren in the Scrutiny Team by: letter c/o of City Hall, More London, SE1 2AA; email laura.warren@london.gov.uk; or telephone: 020 7983 6545. For press enquiries contact Dana Rothenberg by telephone: 020 7983 4603 or email dana.rothenberg@london.gov.uk

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Chair's Foreword

Many people using the Tube last year will have experienced disruption and delay. They may have wondered why this was happening and when the service would get better, given all the work taking place to upgrade the network.



Taking the problems in 2010/11 as a starting point, we have explored the state of the Underground eight years on from the start of the upgrade programme and one year on from TfL taking over the entire programme following the end of the PPP. We are grateful to all those who have contributed to our investigation.

Whilst delays on the Tube have reduced in the last eight years, last year was marked by the longest sustained period of poor reliability since the start of the upgrades. Industrial action accounted for much of the increase in delays across the network. However, on lines with the most delays, such as the Jubilee and Victoria, the main cause of the increase was problems with assets such as operating systems and trains. TfL has told us it is now responding to these problems and has learned lessons from the Jubilee line upgrade. We welcome this and look forward to receiving more information on the steps that have been taken.

The upgrade programme has delivered some improvements on the Tube but any increases in capacity have been outstripped by rising demand. Since 2003/04, passenger journeys have increased by 17 per cent but the level of service provided has risen by two per cent. With further slippage on the delivery of some line upgrades last year and loss of funding for others, passengers should not expect to see major improvements across the network for at least another five years. We, therefore, call on TfL to take further steps to manage crowding on the Tube in the short term. The Mayor and TfL should also be making the case to government for funding to deliver full upgrades to the Bakerloo, Piccadilly and Central lines.

Billions of pounds have now been spent on the upgrade programme but not all of it in line with international good practice. Drawing on examples from abroad including Metros in Paris, Madrid and New York, the PPP Arbiter found TfL could cut its costs by adopting different processes and practices. TfL has told us it is now seeking to

find savings on the Tube. It has forecast lower costs for upgrade and maintenance work but not necessarily in all areas and not in line with expenditure by the best international Metros. We suggest it could bring down its costs by looking again at its organisational structures and recruitment. We also look to the new Independent Investment Advisory Group (IIPAG) to provide the technical expertise needed to ensure TfL delivers value for money on the upgrades.

Over the next few years TfL faces significant challenges on the Tube. It will need to: improve the performance of the Underground; deliver some of the most complex line upgrades; and realise considerable savings and efficiencies. We will continue to monitor its progress closely.

Caroline Pidgeon AM
Chair of the Transport Committee

Executive Summary

In assessing the state of the Underground, the Committee has highlighted significant challenges ahead. Over the next few years London Underground needs to deliver the rest of the upgrades, which will be more complex and extensive than the work carried out to date, while minimising disruption to passengers. It also aims to bring operating performance up to record levels in time for the 2012 Olympic and Paralympic Games after a prolonged spell of poor performance in 2010/11. Both of these challenges will need to be met while implementing a major efficiency programme and finding £4.2 billion of savings by 2018.

Following its analysis of Tube performance data made available to the Committee, and written submissions from, and meetings with, experts and interested parties, the Committee has reached findings and made recommendations on three areas: reliability; overcrowding, journey times and quality of service; and spending. Together these three areas present a picture of the state of the Underground in 2011, how that compares with 2003/04 when the upgrade programme started, and what the future prospects are for Tube passengers.

The reliability of the Tube

- Delays on the Tube have reduced since 2003/04 but the period between August 2010 and January 2011 saw the longest sustained period of poor reliability since the start of the upgrades.
- Whilst industrial action accounted for around half the increase in delays across the network between 2009/10 and 2010/11, on the lines with the most delays the main cause was asset failures, such as problems with trains and track.
- There are signs of improving reliability but it is too early to say whether the increase in delays in 2010/11 was a blip in the long-term trend of improving reliability since 2003/04 or a more worrying decline.
- TfL has responded to the decline in performance and has put in place plans to deliver improvements on each line.
- TfL has learned lessons from the Jubilee line upgrade but needs to do more to match international best practice.

We have set London Underground challenging performance targets which would fulfil the Managing Director's commitment to reach record levels of performance by June 2012. The Committee is looking to London Underground to regularly publish performance data so progress towards these targets can be assessed. We also make a

recommendation to the Mayor asking him to ensure that everything possible is done to maintain good industrial relations in the run-up to the 2012 Games.

Overcrowding, journey times and the quality of service

- Any improvements to Tube capacity since the start of the upgrade programme have been outstripped by rising demand. In the last eight years, passenger journeys increased by 17 per cent whilst the level of service provided rose by just two per cent.
- Tube passengers should not expect to see major improvements in capacity and total journey times across the majority of the Tube network for at least another five years.

We recommend that TfL should take further steps to manage crowding on the Tube and reiterate our calls for real-time information to be made available to passengers and alternative routes to popular destinations advertised. We call on the Mayor and TfL to continue to make the case to Government for funding to upgrade the Bakerloo, Piccadilly and Central lines, whilst recognising the Government is operating within very tight financial constraints.

Expenditure on the Tube

- In the past TfL has spent more than other Metros abroad on line upgrades and maintenance. Drawing on international good practice, the PPP Arbiter found TfL could cut its costs by adopting different processes and practices.
- TfL forecasts lower upgrade and maintenance costs in future but not in all areas and not in line with expenditure by the best international Metros.
- TfL wants to find £4.2 billion of savings from the Tube by 2018 but has provided few details to date on how it will find these savings.
- The Independent Investment Programme Advisory Group (IIPAG) has an important role to play in ensuring TfL's future expenditure on the Tube is value for money.

We challenge London Underground to bring its costs down to the most efficient international Metros by looking again at its organisational structures and recruitment. We also look to the new Independent Investment Programme Advisory Group to demonstrate its independence and help this Committee and others to hold London Underground to account for its performance and efficiency in the critical years ahead.

Introduction

It is eight years since work began to improve the Tube. In 2002/03 the government entered into a Public Private Partnership (PPP) arrangement to provide for private infrastructure companies (infracos) to upgrade and maintain London Underground's assets. The PPP was to deliver improvements to trains, stations, tracks, tunnels and signals. In turn, these changes would enhance the day-to-day reliability of the Tube and increase its capability, allowing more services to operate and increasing overall capacity by 30 per cent by 2020.

Last year Tube passengers faced significant disruption on a regular basis leading to a large amount of media interest and a renewed focus on the actions of the Mayor and TfL in responding to the disruption. There was also further slippage in the delivery of upgrades, most notably on the Jubilee line.

This period of poor performance followed the end of the PPP and TfL's takeover of the entire upgrade and maintenance programme. At the end of June 2010, Tube Lines, the infraco responsible for the Jubilee, Northern and Piccadilly lines, became a wholly-owned subsidiary of TfL after months of bitter wrangling over the costs of future work. Three years earlier, TfL had taken over Metronet, the organisation responsible for all the other lines (Bakerloo, Central and Victoria and the sub-surface lines - Circle, District, Hammersmith & City and Metropolitan), after it collapsed and entered administration.

In light of the problems in 2010/11, we undertook an investigation into the state of the London Underground. We wanted to see what has happened to the Tube eight years on from the start of the upgrade programme and one year on from the end of the PPP. We have considered recent performance and the delivery of improvements across the network and by line. In doing so, we have focused on the performance measures which most obviously affect the experience of passengers such as reliability, overcrowding and journey times. We have explored the actions the Mayor and TfL have been taking or could take to reduce disruption on the Tube and get the upgrade programme back on track. Our investigation has involved a number of stages. Further details of our work are set out at Appendix 2.

This report examines the reasons for the disruption in 2010/11, the response of the Mayor and TfL and the prospects of improved performance for passengers in the future. We also look in detail at where we are at with the long-term programme of line upgrades to

assess what improvements there have been to date and what further improvements passengers might see in the short and long term. Finally, we consider the cost of the upgrades and the implications of the collapse of the PPP for TfL.

Our technical annex includes details of all the analysis which has informed this report and summarises performance and upgrade information for each Underground line. We have also made all the data provided to us publicly available in the London Datastore.

1. The reliability of the Tube

Key points

- Delays on the Tube have reduced since 2003/04 but the period between August 2010 and January 2011 saw the longest sustained period of poor reliability since the start of the upgrades.
- Whilst industrial action accounted for around half the increase in delays across the network between 2009/10 and 2010/11, on the lines with the most delays, the main cause was asset failures, such as problems with trains and track.
- There are signs of improving reliability but it is too early to say whether the increase in delays in 2010/11 was a blip in the long-term trend of improving reliability since 2003/04 or a more worrying decline.
- TfL has responded to the decline in performance and has put in place plans to deliver improvements on each line.
- TfL has learned lessons from the Jubilee line upgrade but needs to do more to match international best practice.

Millions of Londoners and visitors to the capital rely on the Tube and its reliability is therefore of critical importance. Under the PPP, the Arbiter considered reliability his primary measure for assessing the performance of the companies running the Tube. The Committee agrees and considers reliability, as measured by delays, to be a key indicator for assessing the state of the Underground and how it has changed over the last eight years since the upgrade programme started. We have therefore analysed TfL data on 'Lost Customer Hours' since 2003/04 to build a picture of delays across the network over time.¹ This includes analysis of previously unpublished TfL data showing the reason for delays by line. This chapter sets out the findings from our analysis and examines TfL's response to the decline in performance between 2009/10 and 2010/11.

The reliability of the Tube since 2003/04

Delays have reduced since the start of the upgrade programme

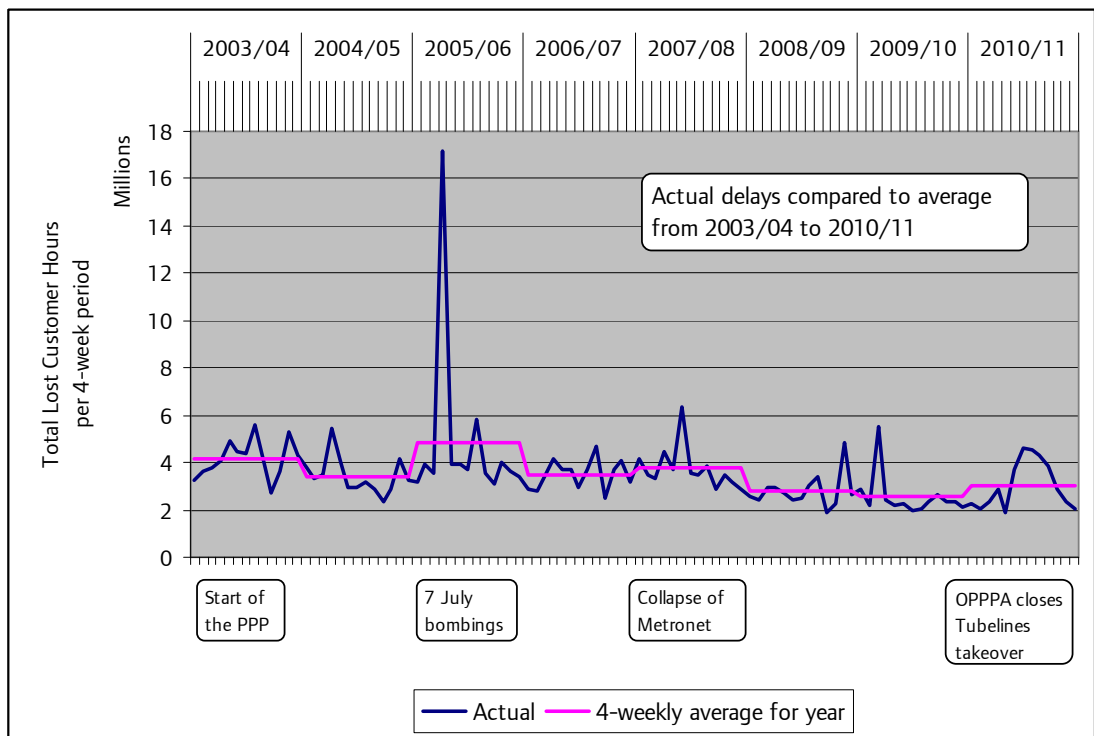
Delays have fallen across the network at the same time as passenger numbers have grown. Between 2003/04 and 2010/11, Lost Customer Hours for the entire network reduced by 27 per cent from 54 million

¹ This measure captures all service disruptions lasting more than two minutes and takes into account the duration, location and time of day of the disruption to estimate the total cost in customer time. This is expressed as Lost Customer Hours.

to 40 million. Over the same period, the total number of passenger journeys rose by 17 per cent to 1.1 billion journeys in 2010/11.²

Between 2009/10 and 2010/11 delays rose by 20 per cent across the entire network

Delays started to increase across the network after 2009/10. This is shown in the chart below alongside the changes each year in Lost Customer Hours for the network since the start of the upgrade programme.



The period between August 2010 and January 2011 was the longest sustained period of poor reliability on the Tube since the start of the upgrade programme. Lost Customer Hours were worse than average in 2010/11 for five consecutive reporting periods.³

Delays increased on eight of the 11 London Underground lines between 2009/10 and 2010/11

Only the Bakerloo, Circle and Hammersmith & City lines recorded fewer Lost Customer Hours in 2010/11 than in 2009/10. The biggest

² Written submission from TfL, June 2011. Copies of all the written submissions received by the Committee are available online at <http://www.london.gov.uk/who-runs-london/the-london-assembly/publications/transport>

³ TfL reports performance on a four weekly basis. The five periods were from 22 August 2010 to 8 January 2011

delays, and the biggest increases in delays, between 2009/10 and 2010/11 occurred on the Metropolitan, District, Jubilee and Victoria lines.

Industrial action was the main reason for the rise in delays across the network

Industrial action accounted for around half of the increase in delays across the Tube network last year causing serious disruption to passengers.⁴ The RMT and TSSA unions held five network-wide strikes between September and December 2010. This action was called in response to TfL's proposals for changes to staffing at Tube stations. TfL reported that the Tube would have met its annual target for percentage of scheduled kilometres operated if the strikes had not happened.⁵

Since the strikes there have been some developments in industrial relations. In May, Bob Crow, General Secretary of the RMT, told us that, following a meeting with Mike Brown, Managing Director of London Underground and London Rail at TfL, a joint panel of union and TfL representatives had been set up to explore ways to improve industrial relations.⁶ Mike Brown described this panel as a "positive step forward." He said that he would continue to meet the unions as much as they wanted to discuss their concerns.⁷

There are, though, outstanding issues. TfL and the unions need to reach agreement on future pay in the run up to the 2012 Games. The unions have also requested more contact with the Mayor. In May, Bob Crow told us that he would like a formal meeting twice a year with the Mayor to discuss major issues.⁸ In response, the Mayor said he was studying this proposal with interest. He went on to say that, following a period of reform, he hoped that "relations can proceed on a new footing."⁹ London First has suggested that the Government could review the thresholds for strike action to ensure that industrial action has clear support of the workforce.¹⁰ In response to this proposal, Bob Crow argued there were already a number of "hoops and hurdles"

⁴ The proportion quoted is calculated on a gross basis using the total across all causal categories where there has been an increase in recorded Lost Customer Hours

⁵ Managing Director's report, TfL Rail and Underground Panel, 5 May 2011, p1

⁶ Transcript of Transport Committee meeting, 17 May 2011, p3

⁷ Transcript of Transport Committee meeting, 14 June 2011, p32

⁸ Transcript of Transport Committee meeting on 17 May 2011, p10

⁹ Transcript of Mayor's Question Time, 18 May 2011

¹⁰ Written submission from London First, 11 May 2011 – The Conservative Group supports the position of London First on this issue

unions needed to go through before calling industrial action and similar thresholds were not applied to other votes.¹¹ London First told us “we cannot go on like this, particularly as we approach the Olympics next year. The GLA, TfL management and the unions need to develop a much more constructive relationship and working culture.”¹²

We welcome the recent improvement in industrial relations but clearly this remains a key risk to TfL’s ability to deliver its obligations. There are some big challenges ahead such as the continuing negotiations on pay and cost reductions at London Underground in order to meet savings targets.

Recommendation 1

In light of the impact of strikes on London Underground’s service in 2010/11 and the risks to the 2012 Games, we recommend that the Mayor review his and TfL’s approach to industrial relations. Specifically, he should consider whether additional meetings with unions or other new structures might help improve relations. We ask that he report back to the Committee by December 2011 on his approach to maintaining good industrial relations over the next 12 months.

Asset failure was the main cause of delays on the worst performing lines

Although industrial action was the main cause of the increase in delays across the tube network between 2009/10 and 2010/11, there was considerable variation in the causes of delays on individual lines. Significantly, on the four worst performing lines (the Metropolitan, Victoria, Jubilee and District) the main reason for the delays was problems with infrastructure not industrial action. In summary, the main problems on these lines were:

- the Automatic Train Operating (ATO) system on the Jubilee line which accounted for around half of the increase in Lost Customer Hours.¹³ TfL highlighted significant teething problems with the new signalling system;

¹¹ Transcript of Transport Committee meeting, 17 May 2011

¹² Written submission from London First, 11 May 2011

¹³ The proportion quoted is calculated on a gross basis using the total across all causal categories where there has been an increase in recorded Lost Customer Hours

- fleet failures on the Victoria line, in particular problems with doors on the new trains, which accounted for around one third of the increase in Lost Customer Hours¹⁴;
- problems with ageing trains on the Metropolitan line which accounted for nearly half of the increase in Lost Customer Hours; and
- fleet failures on the District line, specifically delays caused by cracks which appeared on the underside of trains. The cracks were in the brackets holding the heavy metal shoes which collect power from the track.

There were also problems with infrastructure on other lines. For example, the Piccadilly and Northern lines experienced delays caused by problems with engineering trains. There were also problems with the track and civils on the Waterloo and City line.

The breakdown of changes in Lost Customer Hours by cause for each line and further details of problems on each line and TfL's response to them are set out in the technical annex.

There are some signs that reliability is improving

The most recently published performance information suggests some improvements but not on all lines. London Underground met its service reliability targets for the entire network in the first two periods of 2011/12 and there were particular improvements on the Jubilee and Metropolitan lines.¹⁵ However, the Piccadilly line missed its target for the percentage of scheduled service operated during this period. It suffered many disruptions caused by various factors such as defective trains and signal failures.¹⁶

TfL's response to the recent disruption

Mike Brown told us that, by June 2012, Tube performance would be back to record levels. He was confident that robust plans had been put in place to deliver this improvement across all lines.¹⁷ The Deputy Mayor for Transport, Isabel Dedring, also reported on a more "root and branch" review now taking place to tackle disruption on the Tube. She said this review was necessary because: the performance in 2010/11 had been unacceptable; some disruption from work to

¹⁴The proportion quoted is calculated on a gross basis using the total across all causal categories where there has been an increase in recorded Lost Customer Hours

¹⁵ TfL, Managing Director's report – London Underground and London Rail, 12 July 2011, p1

¹⁶ TfL, Managing Director's report – London Underground and London Rail, 12 July 2011, Apx

¹⁷ Transcript of Transport Committee meeting on 14 June 2011, p3

upgrade lines is inevitable but needs to be kept to a minimum; and, over time, the line upgrades will deliver more trains and passengers. If the rate of disruptions per train movement stays the same, one consequence of more trains would be more disruptions - and the Deputy Mayor for Transport stressed this was a further reason to ensure everything was being done to minimise the number of incidents.¹⁸

It will be difficult to assess the impact of these plans and reviews, or monitor progress towards the June 2012 target, without changes to the way TfL publishes information. TfL does not publish information on a line-by-line basis nor in a timely fashion. In May, the PPP Arbiter said that TfL had not published its four-weekly PPP performance report since January and that these reports did not set out the reasons for any changes in Tube availability.¹⁹ John Dickie of London First made a similar point.²⁰ He told us it was hard to see from information routinely published by TfL how far strikes, the delivery of the upgrades or the failure of TfL management to deliver the Tube service were causing delays.

The Deputy Mayor for Transport has told us that TfL's performance information is now being reviewed. The aim of this work is two-fold: to establish a more easily accessible performance report that will be published regularly; and to develop new performance metrics that might be more meaningful to passengers.²¹

To inform this review, we have written with details of what we consider to be the minimum level of information TfL needs to start publishing if the Deputy Mayor for Transport is to deliver her commitment to make performance information available and accessible. Our proposals draw on information that has only so far been provided as a result of our investigation, e.g. the breakdown of Lost Customer Hours by line and causative factor which would enable passengers to find out what was happening on the lines they regularly use. Further details of our proposals are set out at Appendix 3.

It is too early for us to conclude whether the delays last year represent a blip in the long-term trend of improving reliability

¹⁸ Transcript of Transport Committee meeting on 14 June 2011, p4

¹⁹ Transcript of 17 May 2011 meeting, p14

²⁰ Transcript of 17 May 2011 meeting, p3

²¹ Informal meeting with Deputy Mayor for Transport, 19 July 2011

since 2003/04 or a more worrying decline. We welcome the recently improved performance on some lines.

We agree with the Deputy Mayor for Transport's assessment of performance in 2010/11 as "unacceptable" and welcome her planned root and branch review to tackle disruption on the Tube. We also welcome the fact that robust plans have been put in place to deliver improvement across all lines and that the Director of London Underground expects performance to be at record levels by June 2012.

The scale of disruption was such that the onus is now on the Mayor and Transport for London to demonstrate that their reviews and plans will result in the right measures being put in place. They also need to make information available to show what is happening and the impact of their interventions. This will help retain public confidence in the Tube and London Underground's ability to manage it effectively.

By summer 2012, we expect to see a sustained reduction in delays on each line. Specifically, for 2011/12 the total Lost Customer Hours for each line should be as low, or lower, than the lowest annual amount recorded since the start of the upgrade programme. The lowest amount for each line is shown in the table below alongside the reduction in Lost Customer Hours required.

London Underground line	Lowest annual Lost Customer Hours recorded since 2003/04 (thousands)	2010/11 Lost Customer Hours (thousands)	Percentage reduction required
Bakerloo	1,640	1,640	0%
Central	4,932	5,876	-16%
Circle	1,405	1,418	-1%
District	3,664	4,806	-24%
Hammersmith & City	1,809	1,976	-8%
Jubilee	6,028	8,182	-26%
Metropolitan	1,614	2,718	-41%

Northern	3,488	3,908	-11%
Piccadilly	3,431	4,109	-17%
Victoria	3,034	4,872	-38%
Waterloo & City	215	220	-2%

Recommendation 2

By December 2011, the Mayor and TfL should provide a written report to the Committee on the steps that have been taken to reduce delays and ensure that performance returns to record levels both across the Tube network and on each individual line. The report should include the actions taken to address the main asset-related causes of increased delays in 2010/11, namely:

- **fleet failures on the Victoria, Metropolitan and District lines;**
- **problems with the Automatic Train Operating system on the Jubilee line; and**
- **problems with engineering trains on the Northern and Piccadilly lines.**

By December 2011, TfL should ensure its regularly published information on Tube performance includes Lost Customer Hours for each of the 11 London Underground lines broken down by causative factor.

The effect of the upgrades on reliability

Any analysis of the performance of the operation of the Tube has to take into account the upgrade programme previously delivered under the PPP and now being managed by London Underground. As we note above, delays were caused by teething problems with new infrastructure introduced as part of the upgrades and problems with ageing infrastructure that is in the process of being replaced. It is therefore important that, now it has responsibility for all the upgrades, TfL is learning from experience to date and matching best practice internationally.

TfL has learned lessons from the Jubilee line upgrade

Our analysis of performance data shows that on almost every key measure, the Jubilee line was the worst performing line in 2010/11. It experienced the most delays and was the most overcrowded.²² This poor performance came on top of four years of huge disruption for Jubilee line passengers during which they experienced 100 weekend closures.²³ These closures continued well beyond the period when the upgrade was originally due to be completed in December 2009.

In June 2010 when TfL took over from Tube Lines, the line upgrade had still not been completed and London Underground spent the first few months assessing the scale of the challenge before committing to a completion date. Mike Brown told us that the situation London Underground found had been so bad that if Tube Lines was still in charge, he thought the new signalling would still not be in place.²⁴

Unfortunately, Jubilee line passengers were again given unfulfilled commitments about the completion date for the upgrade and an end to the disruption. During the early part of 2011, the Mayor and TfL said the upgrade would be completed in the spring. In the event it was July before the Mayor was able to report that TfL was on track to increase the number of trains on this line during peak hours from 24 to 27 from 31 July 2011 onwards. More changes are expected to follow in 2012 to increase the frequency of service and the number of trains in peak hour²⁵, which will deliver the planned 33 per cent increase in peak hour capacity.

The delays to the completion date for the Jubilee line upgrade and the regular disruption to passengers due to closures was made worse by an increase in delays in 2010/11 caused by failures in the Automatic Train Operating system. The net effect of the disruption caused by closures and delays will inevitably have damaged passenger confidence. TfL needs to ensure that this catalogue of disruption caused by unnecessary closures during upgrade and asset failure with new equipment is not repeated on other lines.

²² Delays as measured by minutes delay per operated kilometre and overcrowding as measured by the ratio of passenger kilometres to operating kilometres (see technical annex for further details).

²³ BBC website, London Tube delays will decline as lines upgraded, 20 February 2011

²⁴ Transcript of Transport Committee meeting on 14 June 2011, p2

²⁵ Mayor's response to question 2254 / 2011 from Valerie Shawcross AM, July 2011

Mike Brown told us that lessons had been learned. Specifically, there were three key lessons from the Jubilee line upgrade:

- 1) Do line upgrades in sections rather than all at once;
- 2) Test new trains and signalling off-site; and
- 3) Ensure full involvement of all relevant staff at an early stage.²⁶

We welcome the fact that the Jubilee line upgrade is nearing completion. The Committee recognises that London Underground inherited huge problems with the upgrade when it took over responsibility in June 2010 and that some of these problems contributed to the decline in performance between August 2010 and January 2011.

We also welcome that TfL has learned lessons from the Jubilee line upgrade and will, in future, seek to carry out line upgrades in sections, do testing off-site and ensure full involvement of all relevant staff at an early stage.

There will be a reduction in weekend closures for future upgrades but further reductions are needed to match international best practice

TfL has announced plans for future line upgrades that aim to reduce disruption for passengers.

- TfL awarded the contract for the resignalling of the sub-surface lines to Bombardier Transportation on the basis of no need for weekend closures. However, there will still be some weekend closures on parts of the lines to upgrade track and platforms.²⁷
- On the Northern line, TfL has proposed far fewer closures than Tube Lines' proposal which, as of February 2010, stood at 65 weekend closures. By contrast TfL has announced the equivalent of around 47 weekend closures: 16 weekends of full or part line closures and six closures of parts of the line for four or five days during Easter and Christmas holiday periods for resignalling and 19 weekend closures for track renewal.²⁸

TfL's plans for future line upgrades are more disruptive than those of other Metros. For example, in Madrid there were no weekend closures at all for upgrading line 1. In Paris fewer than six weekend closures

²⁶ Transcript of Transport Committee meeting on 14 June 2011, p15

²⁷ TfL press release 144, 14 June 2011

²⁸ TfL press release 143, 13 June 2011

were used for a line upgrade.²⁹ TfL has reported that its plans for the Northern and sub-surface line upgrades are still under review. It will seek to reduce the number of closures wherever possible.³⁰

In the past we have recommended the use of block closures in some cases as an alternative to large numbers of weekend closures.³¹ TfL has since used block closures on some lines. Most recently it closed the District line between High Street Kensington and Edgware Road for four weeks between 23 July and 23 August 2011 for some upgrade work. TfL reported that this approach has saved time and money. The alternative would have required 20 weekend closures spread across 6 months and cost £20 million rather than £13 million.³²

In July, David James, Chair of the Independent Investment Programme Advisory Group (IIPAG), told us that IIPAG was producing a report on the use of block closures and whether these or weekend/evening closures were the most cost-effective approach for delivering line upgrades.³³

We are disappointed that despite the welcome reduction in planned closures of the Northern line during its upgrade, London Underground cannot yet emulate the achievements of other Metro systems in Paris and Madrid in terms of minimising disruption. We note that the plans for the Northern line and sub-surface line upgrades remain under review and further reductions in closures will be sought. We will continue to press for these further reductions to ensure that the needs of passengers and businesses on the affected lines are at the heart of decision-making about closures.

The Committee has previously made the case for longer block closures on parts of lines in certain circumstances and we welcome London Underground's adoption of this approach on the District line. We look to IIPAG's work on the cost-effectiveness of different types of closures to produce proposals for further block closures where the disruption to passengers can be managed effectively.

²⁹ Redacted copy of Halcrow report, notional infraco strategy, 8 March 2010, p255

³⁰ TfL press release 144, 14 June 2011

³¹ Transport Committee report, 'Too close for comfort: passengers' experiences of the London Underground', December 2009

³² Mike Brown letter to Transport Committee, January 2011, enclosure

³³ Transcript of Transport Committee meeting on 25 July 2011, p20

2. Overcrowding, journey times and the quality of the service

Key points

- Any improvements to Tube capacity since the start of the upgrade programme have been outstripped by rising demand. In the last eight years, passenger journeys increased by 17 per cent whilst the level of service provided rose by just two per cent.
- Tube passengers should not expect to see major improvements in capacity and total journey times across the majority of the Tube network for at least another five years.

After years of disruption and huge expenditure, passengers might reasonably expect to start seeing their Underground journeys becoming less overcrowded and unpleasant. Under the PPP significant improvements to capacity and journey times were due to be realised between 2011 and 2020. In this section of the report we examine the impact of the upgrade programme so far on these aspects of the Underground service and the prospects for improvement during the remainder of the programme.

Overcrowding

The upgrade programme has increased the capacity of the Underground. The Waterloo & City Line upgrade was completed in 2007 delivering an increase in its capacity of 25 per cent. A seventh carriage was added to all Jubilee line trains in 2006 providing 16 per cent more capacity.³⁴ Subsequently TfL increased the frequency of services on this line during peak hours. On the Circle line, TfL also introduced a new service pattern which has delivered significant increased frequency on the section to Hammersmith.³⁵

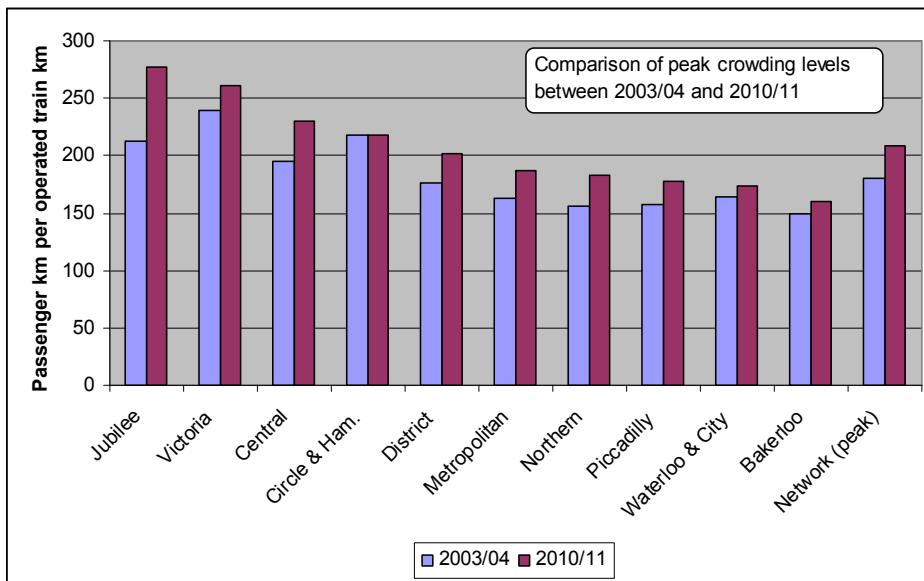
However, as we pointed out in our report in 2009 on passengers' experiences of the Underground, these increases in capacity have not significantly relieved overcrowding over a sustained period because they have been accompanied by increases in demand that outstrip the increased supply. Even if the upgrade programme had been delivered as planned, it was not expected to meet all future demand; the original programme was due to deliver an increase in capacity of 30 per cent across the entire network by 2020. TfL had forecast that

³⁴ TfL report on upgrade programme March 2011

³⁵ TfL report on upgrade programme March 2011

passenger journeys would increase by 40 per cent over the same period.³⁶

As a result, crowding on the Underground has increased since 2003/04: peak crowding across the network increased by 16 per cent over this period. The graph below shows that despite the upgrade programme, crowding as measured by passenger kilometres per train kilometre operated increased on each line apart from the Hammersmith and City and Circle lines.³⁷ The greatest increase was on the Jubilee line which has seen an increase of over 30 per cent in peak crowding compared to 2003/04. TfL's own measures for capacity also point to increased crowding. For example, the average number of passengers per London Underground train grew 12 per cent from 108.5 in 2003/04 to 121.9 in 2009/10.³⁸



In 2010/11, there were major changes to the upgrade programme which will delay the delivery of further capacity increases. In October 2010, the Government published its funding agreement with TfL until 2014/15 which provided for the upgrades to continue but did not

³⁶ London Underground, London's Upgrade report, Autumn 2010, p6

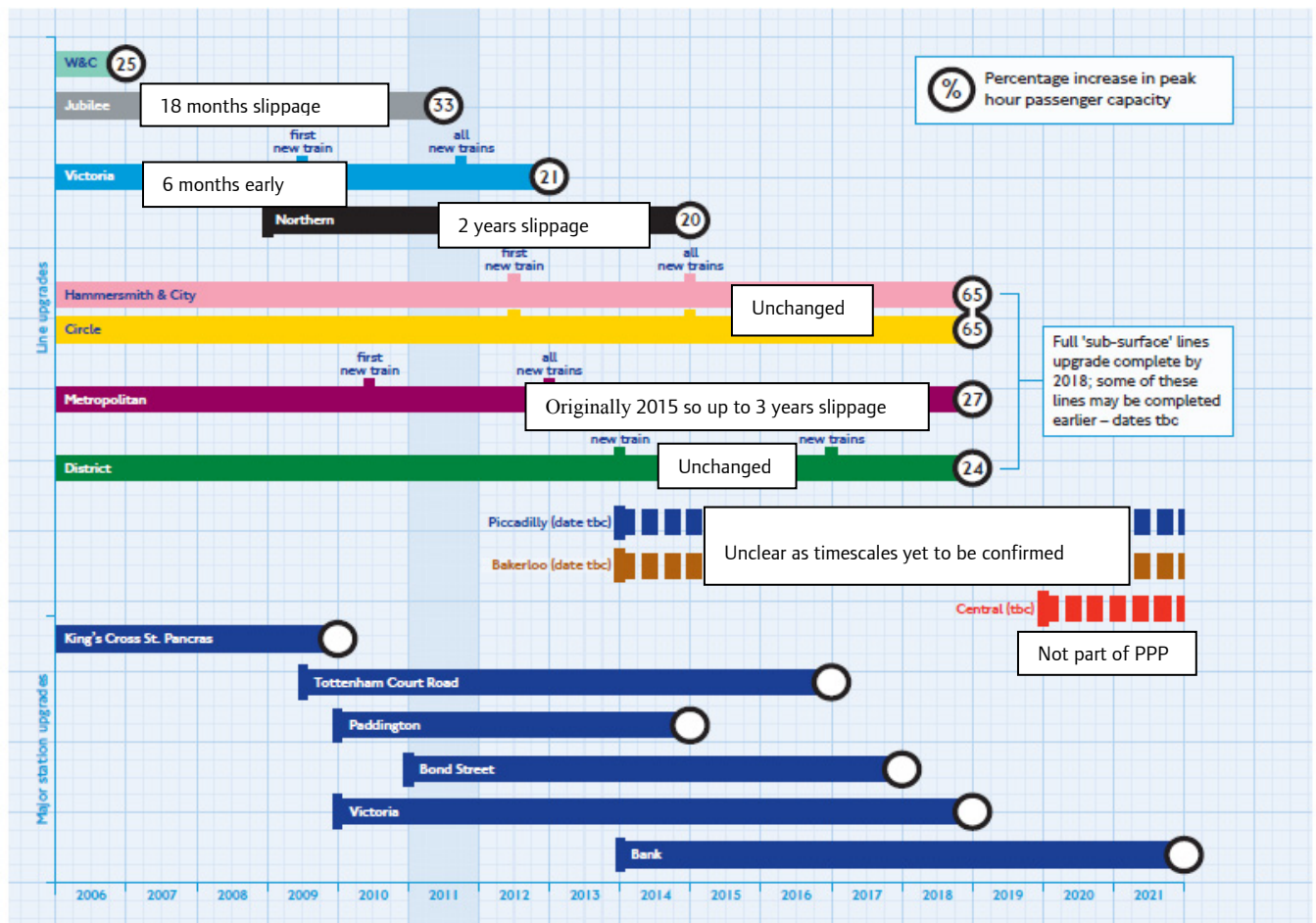
³⁷ This data is useful for demonstrating the change in average crowding on individual lines. Caution should be applied when using this data to assess the relative crowding between lines because it uses averages across the whole line at peak times and therefore may not reflect the level of crowding on the busiest parts of the line. This caveat should be similarly applied to TfL's measures of capacity: average vehicle occupancy and 'place kms' (vehicle capacity x kms operated).

³⁸ TfL Travel in London Report 3, p115-116

include provision for full upgrades to the Bakerloo and Piccadilly lines. This agreement also set out new timings for other line upgrades.³⁹

In March 2011, TfL published its new timeline for the entire upgrade programme which showed later timescales than originally planned for five of the line upgrades. This timeline shows slippage on the Jubilee, Northern, Piccadilly, Metropolitan and Bakerloo line upgrades. TfL's timeline is set out below with details of the original timescales.⁴⁰

TfL's timescales for each line upgrade with details of how these timings compare to the original timescales



Future demand for the Tube is difficult to predict accurately and will depend on various factors. In 2009/10, for example, demand for the Tube fell due to the recession before it rose again to record levels in

³⁹ Letter from Department of Transport to the Mayor, 20 October 2010

⁴⁰ TfL's Business Plan 2009/10 – 2017/18, November 2008, p. 33

2010/11. Other developments on the transport network may also affect demand for the Tube. For example, Crossrail will provide an alternative form of transport for people travelling in central London. It should add an extra 10 per cent to London's rail based transport network capacity and it is anticipated that this will help ease the pressure on the Tube.⁴¹

Nevertheless it is clear that, in the short term at least, Tube passengers should expect more crowding. Many of the future line upgrades will not be completed before 2018 when Crossrail is also due to start operating. For the next five years, passengers may experience more closures for upgrade work and more overcrowding as a result. In light of this, TfL must make clear to passengers what they can expect to see from the upgrade programme. TfL may need to modify its publicity about the upgrades to ensure it manages expectations. It may also need to take other steps to help alleviate overcrowding.

In the past we have recommended actions TfL should take to help reduce Tube crowding. These included:

- improving train design on the new fleet to maximise space and reduce overcrowding
- providing 'real time' information on the levels of overcrowding at the entrances to Tube stations.
- more training for Tube station staff so they could advise passengers on alternative options for their journeys.⁴²

In response, TfL told us about the action it was taking and as we note in this report has made progress on a number of the issues we highlighted, such as reducing closures in future upgrades and introducing block closures where appropriate. TfL also said that it was evaluating our suggestion about providing 'more real time' information.⁴³

In the longer-term, it is clear that all the line upgrades need to happen to help meet future demand. TfL and the Deputy Mayor for Transport have told us that they are making the case to government for funding full upgrades to the Piccadilly and Bakerloo lines. They are also

⁴¹ <http://www.crossrail.co.uk/news/press-releases/crossrail-confirms-shortlist-for-rolling-stock-depot-facilities>

⁴² Transport Committee report, 'Too close for comfort: passengers' experiences of the London Underground', December 2009

⁴³ http://www.london.gov.uk/sites/default/files/Section%2060%20response_0.pdf

pressing for funding to upgrade the Central line, which was not part of the original PPP. In the absence of full line upgrades, TfL has reported that it will spend around £700 million between now and 2018 on these three lines to extend the life of signalling and the fleet to reduce incidents which cause disruption.⁴⁴

Journey times

Passengers' experience of the Tube is affected by journey time. Although marginal decreases in journey time are unlikely to be noticed by most passengers, the upgrades promised quicker journeys which would free up the network to run more trains. This would then help ease overcrowding.

The average total journey time for the entire Tube network has changed little since 2003/4 but there have been some changes at line level. In recent years there were lower average total journey times on four lines. These were the Bakerloo, Central, Northern and Waterloo & City lines. By contrast, the average total journey time has not improved on the other seven lines, where total journey times increased in 2010/11 compared to 2003/4 (see technical annex).

The travelling environment

The greatest progress, to date, has been on improving Tube stations and trains. Over half (165) of the total 270 Tube stations have been refurbished since 2003/04.⁴⁵ Many escalators have been improved. New trains are now operating on the Metropolitan and Victoria lines. The District line trains were also upgraded in 2008.⁴⁶

Passengers were more satisfied with the Tube in 2010/11 than in 2003/4. Over the last eight years, the overall customer satisfaction rating for the Tube has risen from 76 to 79 out of 100. In the last year, the highest rated aspects of the Tube were personal safety and the help and appearance of ticket office staff; the lowest rated aspect was tube crowding.

Conclusions

The Tube is more crowded now than when the upgrade and maintenance programme started. The average time it takes to make a journey is no better now than in 2003/04. This is not

⁴⁴ Transcript of 14 June 2011 meeting, p26

⁴⁵ TfL report on upgrade programme March 2011

⁴⁶ TfL report on upgrade programme March 2011

surprising given the huge rise in demand over the last eight years and the time it takes to deliver line upgrades which are major pieces of work.

The situation is set to worsen following major changes in the upgrade programme. Five line upgrades will now be delivered later than originally scheduled and, in the case of the Piccadilly and Bakerloo lines, may not be delivered at all unless funding is secured. It is going to take longer than originally anticipated before significant improvements in capacity and journey times are delivered on many parts of the Tube network.

In the absence of major improvements in the next five years, TfL needs to manage passengers' expectations. It should be honest about the changes that they can expect to see when they use the Tube. TfL should also be taking other action to help alleviate Tube crowding along the lines proposed in our 2009 report.

It is also vital that the case is made to government for funding all line upgrades. The high levels of demand for the Tube now, let alone in the future, show the need to improve day-to-day reliability and increase capability across the whole network. Whilst in the absence of full-line upgrades some improvements will be made to the Bakerloo and Piccadilly lines, these alone will not deliver significant increases in capacity and better journey times. These lines and the Central line need to be fully upgraded as well and the Mayor and TfL need to start making the case to Government ahead of the next spending review.

Recommendation 3

By December 2011 the Mayor and TfL should report to the Committee on the steps that will be taken to manage crowding on the Tube between now and 2018. The report should address how London Underground has responded to the issues raised in our previous report including progress with making real-time information available to passengers at stations and advertising alternative routes to popular destinations.

Recommendation 4

We recommend that the Mayor and TfL continue to make the case to Government for funding to upgrade the Bakerloo, Piccadilly and Central lines and intensify this activity in the run up to the next spending review. The Committee will support all efforts to this end recognising the importance of an efficient Tube network to the London and UK economy.

3. Expenditure on the Tube

Key points

- In the past TfL has spent more than other Metros abroad on line upgrades and maintenance. Drawing on international good practice, the PPP Arbiter found TfL could cut its costs by adopting different processes and practices.
- TfL forecasts lower upgrade and maintenance costs in future but not in all areas and not in line with expenditure by the best international Metros.
- TfL wants to find £4.2 billion of savings from the Tube by 2018 but has provided few details to date on how it will find these savings.
- The Independent Investment Programme Advisory Group (IIPAG) has an important role to play in ensuring TfL's future expenditure on the Tube is value for money.
- TfL needs to do more to demonstrate that it has the capacity to deliver the rest of the upgrade programme while continuing to meet the huge demand for the Tube and finding large savings.

When it took over Tube Lines in June 2010, TfL reported that it was confident of generating substantial savings on the upgrades.⁴⁷ The Transport Commissioner stated that this buy-out at a cost of £310 million would leave TfL cash positive within four years and save hundreds of millions of pounds by 2018.⁴⁸

TfL is now under pressure to live up to its promise of more efficient and effective management of the programme at the same time as providing the day to day service and implementing a significant programme of spending reductions. As part of its current business plan, TfL is seeking £4.2 billion of savings from the Tube by 2018.

TfL's expenditure on line upgrades

In the past TfL has spent more on line upgrades than other organisations. In early 2010, the media reported the PPP Arbiter as saying that TfL had spent £4.25 million per track kilometre on upgrading signalling on the Victoria line whereas Tube Lines had spent £2.75 million per track kilometre on upgrading signalling on the

⁴⁷ TfL press release, 7 May 2010

⁴⁸ Interview with BBC, 10 May 2010

Jubilee line.⁴⁹ Tube Lines' expenditure was in line with the PPP Arbiter's benchmark of £2.7million.⁵⁰

The PPP Arbiter developed his benchmarks for expenditure on line upgrades and asset maintenance, in part, by drawing on international good practice from various Metros. These included Metros in Madrid, Hong Kong, Paris and New York.⁵¹ He found TfL could reduce its costs for line upgrades if it adopted different standards and processes. He suggested TfL could find efficiencies by: commissioning less bespoke new infrastructure; undertaking more testing of new equipment off-site; and doing less enabling works in-house.⁵²

TfL has told us its future costs for line upgrades will be in line with the PPP Arbiter's benchmark. Its current forecast average cost for signalling on the Jubilee, Northern and sub-surface lines is £2.4 million per track kilometre (2011 prices). TfL has also reported that it is confident final costs for the resignalling of the sub-surface lines could be lower than the PPP Arbiter's estimates.⁵³

Although TfL has forecast lower upgrade costs, these are still higher than the best performing metros internationally. For example, Metro de Madrid spent £1 million per track kilometre on resignalling its lines.⁵⁴ This is less than half TfL's forecast average cost for resignalling the Jubilee, Northern and sub-surface lines. In the past, the Committee has heard from Metro de Madrid about the differences in the scope of the upgrades.⁵⁵ This is a factor that needs to be considered when comparing costs.

TfL's expenditure on maintenance

In the past TfL has spent more on Tube maintenance than other organisations in both the UK and abroad. Towards the end of the PPP, the PPP Arbiter found that, when comparing TfL's performance on the old Metronet lines to Tube Lines, TfL had spent up to: 40 per cent more on maintaining trains; 38 per cent more on maintaining

⁴⁹ The Guardian, 'London Underground ordered to plug £460m PPP funding gap', 10 March 2010

⁵⁰ Redacted copy of Halcrow report

⁵¹ Redacted copy of Halcrow report on notional infraco strategy, March 2010

⁵² Office of the PPP Arbiter, final close out report, November 2010, p15

⁵³ TfL written submission, 9 June 2011

⁵⁴ <http://www.railwaygazette.com/nc/news/single-view/view/madrid-resignals-two-lines.html> This article shows Metro de Madrid spent just over Euros 100m on the resignalling of two lines. Each line is c.24km. If each has two tunnels/routes then you would have 48km each totalling 96km and give a cost of around Euro 1m per km

⁵⁵ Transcript of Transport Committee meeting on 3 September 2009, p2

signalling; and 70 per cent more on maintaining track on the lines under its control. In May 2010, the PPP Arbiter concluded that Tube Lines' maintenance costs for the Jubilee, Northern and Piccadilly lines were generally improving and moving towards his benchmarks. By contrast, TfL's maintenance costs for the other lines were generally increasing.⁵⁶

The PPP Arbiter found that TfL could reduce its costs for maintenance in a number of ways. He suggested that TfL move from separate teams of maintenance staff for each line to fewer multi-skilled teams operating across a number of lines. TfL could also save money by: using machines rather than people to carry out line inspections; adopting a risk-based approach to maintenance; and undertaking some maintenance work at off-peak times rather than overnight.⁵⁷

Recently TfL has reported its intention to find £1 billion of maintenance efficiencies by 2018. In June, it published a detailed report on asset benchmarking. This set out past and future unit costs for maintaining the fleet, signals, track, stations, lifts and escalators across London Underground lines.⁵⁸

Although TfL is seeking efficiencies, gaps remain between its forecast maintenance costs for each line and those of other Metros. The benchmarking report showed that TfL expects unit costs for maintaining rolling stock and track to rise on the Jubilee, Northern and Piccadilly lines by 2018 at the same time as they fall on the other lines. By contrast the unit costs for maintaining stations and lifts are set to fall on these three lines by 2018 but rise on the other lines. TfL is now undertaking "drill-down" studies to understand the reasons for differences in maintenance costs between the lines and the opportunities for sharing good practice across lines.⁵⁹

The management and impact of spending reductions

TfL had told us that the £4.2 billion of savings from the Tube will largely come from operational expenditure. It reported that most of these savings would come from staffing changes following the

⁵⁶ Office of the PPP Arbiter, final close out report, November 2010,

⁵⁷ Office of the PPP Arbiter, Final Benchmarking reports, October 2010, Summary

⁵⁸ 'Rail and Underground Asset Benchmarking', agenda item 10, TfL Board, 29 June 2011

⁵⁹ 'Rail and Underground Asset Benchmarking', agenda item 10, TfL Board, 29 June 2011

integration of Metronet and the takeover of Tube Lines. It also indicated that many of these savings have already been achieved.⁶⁰

The extent to which TfL is realising efficiencies by adopting different processes and practices is not clear. However, it is apparent that TfL has started to reduce some expenditure by deferring pieces of upgrade work or ceasing to do them altogether. In 2010/11, TfL underspent on Tube upgrades as a result of various factors including “Piccadilly line upgrade scope deferrals” and halting refurbishment work at some stations.⁶¹

TfL should be learning lessons from other Metros. The Chair of TfL’s Rail and Underground Panel highlighted the “phenomenal performance” of the MTR in Hong Kong on “kit that is of a similar age”. The Committee also heard about the high performing Metro in Stockholm and Barcelona’s metro which is reportedly being expanded at relatively low cost.

There is evidence that TfL has already learned lessons from elsewhere to good effect. For example, TfL’s recent benchmarking report shows that, following its participation in a joint study with other Metros, it found it could reduce its costs for escalator maintenance by £100 million over 20 years.⁶² TfL’s approach to the delivery of the Northern and sub-surface line upgrades has also been informed by the work of other Metros.

We welcome the fact that TfL expects its future costs for line upgrades to be brought into line with the PPP Arbiter’s benchmark which are based on best practice in the UK and abroad. However, both these costs and TfL’s maintenance costs remain above those of other Metros and in some cases are considerably higher. We look to TfL’s proposed drill-down studies to drive down further the costs of maintenance. The savings TfL identified in its escalator maintenance programme demonstrate the potential of what can be achieved by comparing its work with international best practice. The Committee also expects the final costs of the resignalling of the sub-surface lines to be lower than the PPP Arbiter’s estimates as TfL predicts.

⁶⁰ Transcript of Transport Committee meeting on 14 June 2011

⁶¹ TfL Board meeting 2 February 2011, item 5, p3

⁶² ‘Rail and Underground Asset Benchmarking’, agenda item 10, TfL Board, 29 June 2011

The pressure to drive down costs will continue as TfL seeks huge savings in its operational budget for the Tube. TfL needs to demonstrate that any future cost reductions realised are true efficiencies and not simply deferring or cancelling planned upgrade works which will have an adverse effect on passengers.

Recommendation 5

By December 2011, TfL should publish a detailed breakdown of its plans to find savings on the Tube upgrade and maintenance programme. We expect this to demonstrate that its costs for the upgrades and ongoing maintenance are in line with the most efficient international metro systems.

The role of the IIPAG

The IIPAG has a key role in maintaining pressure on TfL to find efficiencies and in providing benchmarks against which TfL's expenditure can be assessed.

Following the end of the PPP, IIPAG is responsible for providing independent expert and technical scrutiny of TfL's expenditure on the Tube upgrades. Originally set up in March 2010 to provide assurance and advice to TfL about its entire investment programme, IIPAG's remit changed in October 2010 as part of the Government's funding agreement with TfL.⁶³ IIPAG now reports directly to the Mayor and its remit includes all line upgrades and overseeing the publication of benchmarking information. IIPAG's terms of reference require it to publish an annual report but it may also publish other reports as it sees fit, after consulting the Mayor and subject to obligations about confidentiality.⁶⁴

The Mayor has described IIPAG as one of the most important developments post PPP in ensuring value for money.⁶⁵ Recently TfL reported that it was seeking to learn lessons from the PPP. It wanted to put in place structures that would ensure transparency, efficiency and value for money which the PPP had "so conspicuously lacked."⁶⁶

⁶³ DfT letter to Mayor on spending review settlement, 20 October 2010

⁶⁴ DfT letter to Mayor on spending review settlement, 20 October 2010, Annex A

⁶⁵ Mayor and TfL answer to question 69/2011 from John Biggs AM, 19 January 2011

⁶⁶ 'TfL acts to ensure Tube upgrade efficiency', Transport Times, July 2011, p13

IIPAG appears to have made some impact in identifying potential efficiencies and savings. In July, David James, Chair of IIPAG, was able to share with us that, while IIPAG cost around £400,000 per annum to run, it had already identified £100 million of savings for TfL. In the next year, he said that IIPAG would focus on TfL's asset management and on overseeing the production of detailed benchmarking information. He also reported that, at this stage, IIPAG was mainly concerned with equalising performance and expenditure across the London Underground lines rather than in comparing the Tube to other Metros.

However, in order for us to have full confidence in the independence and impact of IIPAG, its work must be transparent and publicly available. Despite the stated commitment of the Mayor, TfL and IIPAG to transparency and public accountability for the technical and value for money work it carries out, IIPAG has yet to publish any detailed findings from its work. David James told us that IIPAG had produced two "hard-hitting" reports for the Mayor but, despite repeated requests, has not published these reports nor any summaries of the main findings. David James told us that he did not mind releasing information but that it was "not our call" and that IIPAG was simply working to its terms of reference.⁶⁷

London First said IIPAG lacked transparency compared to the PPP Arbiter, who frequently published his reports.⁶⁸ The PPP Arbiter also commented on IIPAG's transparency.⁶⁹ He highlighted that decisions about releasing information were his to make under the PPP structure and not subject to political approval. He suggested that we, the Committee, should be able to commission work from IIPAG to answer our concerns. Failing that, it might be necessary to establish a separate, truly independent organisation to assess TfL's work on the Tube.⁷⁰

Christopher Garnett, Chair of TfL's Rail and Underground Panel, acknowledged the importance of IIPAG publishing more of its findings. He told us there was a need to find a way for it to release

⁶⁷ Transcript of Transport Committee meeting on 25 July 2011, p4

⁶⁸ Transcript of 17 May 2011 Transport Committee meeting, p35

⁶⁹ Transcript of 17 May 2011 Transport Committee meeting, p35

⁷⁰ Transcript of 17 May 2011 Transport Committee meeting, p35

more information even if its full reports were not published.⁷¹ We now need to see evidence of this commitment being put into action.

IIPAG has an important role to play in ensuring TfL realises value for money on its future expenditure on the Tube. It is apparent that IIPAG has started to identify ways in which TfL could realise savings. However, it is disappointing that to date IIPAG has not published any detailed findings from its work. This is in stark contrast to the work of the PPP Arbiter which was publicly available and appears to have played a key role in driving down TfL's expenditure on line upgrades.

We want IIPAG to publish more information about its future work programme and its key findings from this work. We want to see the regular publication of information that provides for TfL's expenditure and progress in delivering Tube upgrades and maintenance to be compared to benchmarks. These benchmarks should include other Metros abroad. Londoners, whose fares and taxes are funding the Tube service and the upgrades, should be able to see whether or not TfL is spending their money effectively.

Recommendation 6

By December 2011 IIPAG should publish full details of its future work programme on the Tube and by when it intends to publish findings from this work. This should include full details of its proposals for benchmarking TfL's expenditure and performance on the Tube upgrades including with other Metros abroad.

TfL's capacity to manage future line upgrades

The problems in 2010/11 have generated concerns about TfL's ability to plan for and deliver the entire upgrade programme. John Dickie of London First told us that the failure of world-class businesses to deliver the Jubilee line upgrade to time raised questions about the framework under which they were operating.⁷² He suggested that TfL needed to plan the line upgrades better and ensure it had staff in

⁷¹ Transcript of Transport Committee meeting on 25 July 2011, p5

⁷² Transcript of Transport Committee meeting on 17 May 2011, p18

place who could assess how the work was progressing and knew how to deal with the unexpected.⁷³ The PPP Arbiter raised similar issues.⁷⁴

The scale of the work still to be done under the upgrade programme is huge and the transfer of responsibility for this work to TfL with the collapse of the PPP brings major challenges. David James told us that IIPAG had questioned whether TfL was set up to deliver such a programme. He highlighted that TfL was “primarily an operations company which had built a capital programme on the side but which now forms one third of its business.”⁷⁵ IIPAG proposed that TfL create a central project management unit to run its major projects. TfL rejected this advice and established two project management units: one in London Underground and one in its Surface Transport directorate.

TfL has reported on steps being taken to improve its capability. Mike Brown told us that he was recruiting new staff including at a senior level to ensure the future line upgrades were delivered as planned.⁷⁶ He also outlined arrangements to mitigate the risks from delivering the Northern and sub-surface line upgrades simultaneously. Both are major pieces of work. He told us each of these upgrades were phased slightly differently and separate teams had been put in place to deliver each project.⁷⁷

Both IIPAG and the Chair of TfL’s Rail and Underground Panel highlighted the need for TfL to recruit senior people with a track record of delivering major capital projects. The Chair of the TfL Rail and Underground Panel highlighted the approach taken by CLM, the consortium of private companies appointed as the Olympic Delivery Authority (ODA)’s delivery partner, as an example of what benefits could be gained from this approach to recruitment:

“If you go to the Olympics, the programme manager in CLM [the ODA’s delivery partner] : they will earn a big bonus but the Olympics are going to be delivered for £7.3 billion against a budget of £8 billion. So nobody is going to jump up and down against the bonus that CLM are going to get. We forget that those people have saved £700 million in this process. We had the same here; top quality

⁷³ Transcript of Transport Committee meeting on 17 May 2011, p26

⁷⁴ Transcript of Transport Committee meeting on 17 May 2011, p21

⁷⁵ Transcript of Transport Committee meeting on 25 July 2011

⁷⁶ Transcript of Transport Committee meeting on 14 June 2011, p11

⁷⁷ Transcript of Transport Committee meeting on 14 June 2011, p21

people cost money but, by golly, they can save you a lot of money in that process. So, to come back, we have to get good quality project management in here and we have to get the people to lead it.”⁷⁸

We remain to be convinced that TfL has the capacity to deliver the line upgrades. IIPAG has suggested that TfL needs more “world-class” people in place to deliver the line upgrades. We agree. The Committee wants to see London Underground appoint people to lead the upgrades who have a track record of delivering large-scale capital projects. We recognise that people of this calibre demand high salaries but consider that such salaries can be justified by the efficiencies and savings they can produce.⁷⁹ The case for this approach is clear from the experience of the Olympics and Crossrail.

We are disappointed that TfL has rejected IIPAG’s proposal to create a central project management unit to run its major projects. IIPAG was created to provide critical challenge and advice to TfL from proven technical and financial experts with experience of overseeing large capital projects. The early experience of London Underground’s management of the upgrade programmes does not give us confidence that such advice should be rejected.

Recommendation 7

By December 2011, TfL should provide a report to the Committee on the changes it has made to its organisational structure, processes and staffing to ensure successful delivery of the day-to-day Tube service and the entire Tube upgrade and maintenance programme.

⁷⁸ Transcript of Transport Committee meeting on 25 July 2011, p16

⁷⁹ Jenny Jones AM does not support this conclusion as the Green Group is seeking to reduce inequality by reducing pay ratios within the GLA family.

Conclusion

The Tube is more reliable than it was eight years ago when the upgrade programme started. Tube passengers experience fewer delays than 2003/04 and are also benefiting from refurbished stations and new trains. As a consequence, customer satisfaction with the Tube has risen.

This period has also been marked by a steady increase in demand which is putting huge pressure on the infrastructure and worsening conditions for passengers. Trains are more overcrowded and the upgrade programme has yet to deliver much in the way of quicker journeys or more or bigger trains to accommodate the increasing numbers of passengers. Unfortunately, there is little evidence that this situation is likely to change for the better in the foreseeable future especially if demand continues to rise.

The pressure on the network also means that when things go wrong it is the passengers that suffer the most. That is why the prolonged period of poor performance 2010/11 has quite rightly been described as unacceptable. Exacerbated by poor industrial relations and increased strikes, we have found that the worst performance resulted from the failure of signals, trains and track. It prompted a series of reviews and promises of improvement from TfL and the Mayor.

It remains to be seen whether the steps that have been taken to date will improve performance and particularly the reliability of the network which is so important to passengers. We are looking to TfL to demonstrate that its changes are having an effect and have taken the Director of London Underground at his word by setting challenging performance targets for summer 2012 which would see the record levels of performance he promised.

The collapse of the PPP has left TfL with a huge responsibility to deliver the rest of the upgrade programme which will be larger and more complex than anything delivered to date. We conclude that TfL has some way to go to bring its costs down to those of the most efficient Metros and to reduce closures and consequential disruption for passengers to best practice elsewhere.

We look to the new Independent Investment Programme Advisory Group (IIPAG) to continue to maintain pressure on TfL to reduce costs and deliver the upgrades effectively and efficiently. The Committee is though concerned that the ability of IIPAG to do this is hampered by

its lack of independence compared to the PPP Arbiter. The early signs are not encouraging. The end of the PPP has resulted in a reduction in transparency about performance and costs.

We are also yet to be convinced that the structures and personnel are in place at TfL to deliver the rest of the upgrade programme efficiently and effectively. The complexities of running the busiest Tube network in the world have now been combined with responsibility for delivering one of the largest transport infrastructure projects. This would be a major challenge at any time; TfL will be meeting this challenge while trying to find billions of pounds of savings from its operating and capital budgets.

The disruption on the Tube in 2010/11 and the effect it had on passengers demonstrated the importance of the network to the capital. The onus is now on the Mayor and TfL to ensure that this level of disruption does not become the norm and that the upgrades that will alleviate some of the pressure on the network can be delivered cost-effectively. This will help make the case for the further investment which is needed in the Piccadilly and Bakerloo lines and which is now uncertain.

The Underground is in a better state than it was in 2003/04 at the start of the upgrade programme, despite the problems of last year. The next few years will be critical though in determining whether improvements can continue to be made while running an efficient service; minimising disruption to the Tube's long-suffering passengers who have experienced such poor performance in 2010/11; and, of critical importance in making the case for future work, saving money. The scale of the challenge ahead is hard to overstate. Nevertheless, we conclude that with the implementation of our recommendations, especially the learning from international best practice, this challenge can be met.

Appendix 1 Recommendations

Recommendation 1

In light of the impact of strikes on London Underground's service in 2010/11 and the risks to the 2012 Games, we recommend that the Mayor review his and TfL's approach to industrial relations.

Specifically, he should consider whether additional meetings with unions or other new structures might help improve relations. We ask that he report back to the Committee by December 2011 on his approach to maintaining good industrial relations over the next 12 months.

Recommendation 2

By December 2011, the Mayor and TfL should provide a written report to the Committee on the steps that have been taken to reduce delays and ensure that performance returns to record levels both across the Tube network and on each individual line. The report should include the actions taken to address the main asset-related causes of increased delays in 2010/11, namely:

- fleet failures on the Victoria, Metropolitan and District lines;
- problems with the Automatic Train Operating system on the Jubilee line; and
- problems with engineering trains on the Northern and Piccadilly lines.

By December 2011, TfL should ensure its regularly published information on Tube performance includes Lost Customer Hours for each of the 11 London Underground lines broken down by causative factor.

Recommendation 3

By December 2011 the Mayor and TfL should report to the Committee on the steps that will be taken to manage crowding on the Tube between now and 2018. The report should address how London Underground has responded to the issues raised in our previous report including progress with making real-time information available to passengers at stations and advertising alternative routes to popular destinations.

Recommendation 4

We recommend that the Mayor and TfL continue to make the case to Government for funding to upgrade the Bakerloo, Piccadilly and Central lines and intensify this activity in the run up to the next spending review. The Committee will support all efforts to this end

recognising the importance of an efficient Tube network to the London and UK economy.

Recommendation 5

By December 2011, TfL should publish a detailed breakdown of its plans to find savings on the Tube upgrade and maintenance programme. We expect this to demonstrate that its costs for the upgrades and ongoing maintenance are in line with the most efficient international metro systems.

Recommendation 6

By December 2011 IIPAG should publish full details of its future work programme on the Tube and by when it intends to publish findings from this work. This should include full details of its proposals for benchmarking TfL's expenditure and performance on the Tube upgrades including with other Metros abroad.

Recommendation 7

By December 2011, TfL should provide a report to the Committee on the changes it has made to its organisational structure, processes and staffing to ensure successful delivery of the day-to-day Tube service and the entire Tube upgrade and maintenance programme.

Appendix 2 Stages in the investigation

The Committee held three public meetings for this investigation.

- On 17 May 2011 it heard from: Chris Bolt, the PPP Arbiter; Bob Crow of the Union of Rail, Maritime and Transport Workers (the RMT); Steve Connolly of Associated Society of Locomotive Engineers and Firemen (ASLEF); and John Dickie of London First.
- On 14 June 2011 it heard from Isabel Dedring, Deputy Mayor for Transport and Mike Brown, Managing Director of London Underground and London Rail, TfL.
- On 25 July 2011, it heard from David James, Chair of the Independent Investment Programme Advisory Group (IIPAG) and Christopher Garnett, TfL Board member and Chair of TfL's Rail and Underground Panel.

The Committee received written views and information from various organisations. These included: TfL; the PPP Arbiter; London First; RMT; ASLEF; TSSA; London TravelWatch; ExCel Ltd; and West Hampstead Amenity and Transport (WHAT).

Appendix 3 Information on the Tube that TfL should publish

The text of our letter to the Deputy Mayor for Transport, 24 June 2011

Further to my letter of 15 June, I am writing with details of the information that we want TfL to publish in relation to Tube performance and the upgrade programme.

At the outset, I thought it might be helpful to outline our objectives for seeking this information. We want to see the publication of data that enables detailed analysis of long-term trends in day-to-day performance of the Tube. We also want TfL to publish information that provides for the performance of the Tube to be compared to the performance of Metros elsewhere, allows for monitoring of TfL's delivery of the Tube upgrade programme against its own detailed plans, and shows what TfL is spending on the upgrade programme so it is possible to see whether or not it is delivering value for money.

As part of our investigation, we asked TfL for specific data on Tube performance and information about the upgrade programme which would help to realise these objectives. We drew up this request based on existing published information which suggested that the data was regularly collected. The request, therefore, provides a good starting point for further data and information that TfL should now publish on an ongoing basis.

In summary, we asked that TfL provide us with the following data relating to Tube performance:

- Lost Customer Hours for each of the 11 lines broken down by causative factor and split by peak/off peak for each four week reporting period from 2003/4 onwards;
- Total journey time for each of the 11 lines for each four week reporting period from 2003/4 onwards;
- Passenger kilometres split by peak/off peak for each of the 11 lines for each year from 2003/4; and
- Operated train kilometres (including targets) split by peak/off peak for each of the 11 lines for each year from 2003/4.

To facilitate ongoing scrutiny of tube performance, we propose that this information is published for each future reporting period. On the

upgrade programme, we requested:

The outline programme for each line upgrade including details of the key stages underpinning the delivery timetable in TfL's Business Plan 2014/15;

- The high level risks for each line upgrade and proposed steps to mitigate these risks;
- The total capability and capacity increases planned over the course of each line upgrade, including how this links to the projections of operated train kilometres; and
- Its expenditure per kilometre of signalling for each line upgrade on a basis that is comparable with the figures used by the PPP Arbiter in his 2010 Tube Lines Cost Directions.

We would not expect this information to change on a regular basis but where it is updated to reflect changing circumstances we would expect TfL to make this available.

In response to our request, TfL provided almost all the information we sought but noted in the reply that much of it was already publicly available. This is not the case. As we discussed at our recent meeting, TfL does publish a large amount of information on the Tube but this is not always reported on a line by line basis, is often only presented graphically, is published in a range of different places and is not always very timely. TfL should, as a matter of course, publish all data on the Tube in a format that permits analysis i.e. it should be publishing 'raw' performance data in Excel spreadsheets. This data and information needs to be easily accessible e.g. from a single location on its web site and/or on the London Datastore. TfL should also ensure the publication of data and information at the earliest opportunity e.g. all Tube performance data should be available within six weeks of its collection or finalisation.

The implementation of these initial suggestions will be helpful but they may not be the only improvements that can be made. We are continuing to review the information produced on Tube performance and the upgrade programme as part of our ongoing investigation. We are now seeking a meeting with David James to discuss IIPAG's role in providing independent assessment of TfL's work on the Tube including the benchmarking information that it will be publishing. We will also consider any benchmarking information reported to the next TfL Board meeting, as mentioned by Mike Brown at our recent meeting.

We would welcome the opportunity to meet you to discuss this further. Laura Warren in the Scrutiny Team has been in touch with

EMBARGOED, until 00.01am on Tuesday, 13 September 2011

your office to identify your availability for a meeting in July. She will be in touch again to firm up a date and time for this meeting.

Yours sincerely

Caroline Pidgeon AM
Chair of the Transport Committee

Appendix 4 Orders and translations

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Vietnamese

Nếu ông (bà) muốn nội dung văn bản này được dịch sang tiếng Việt, xin vui lòng liên hệ với chúng tôi bằng điện thoại, thư hoặc thư điện tử theo địa chỉ ở trên.

Greek

Εάν επιθυμείτε περίληψη αυτού του κειμένου στην γλώσσα σας, παρακαλώ καλέστε τον αριθμό ή επικοινωνήστε μαζί μας στην ανωτέρω ταχυδρομική ή την ηλεκτρονική διεύθυνση.

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Bu belgenin kendi dilinize çevrilmiş bir özetini okumak isterseniz, lütfen yukarıdaki telefon numarasını arayın, veya posta ya da e-posta adresi aracılığıyla bizimle temasa geçin.

Punjabi

ਜੇ ਤੁਸੀਂ ਇਸ ਦਸਤਾਵੇਜ਼ ਦਾ ਸੰਖੇਪ ਆਪਣੀ ਭਾਸ਼ਾ ਵਿਚ ਲੈਣਾ ਚਾਹੋ, ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਇਸ ਨੰਬਰ 'ਤੇ ਫ਼ੋਨ ਕਰੋ ਜਾਂ ਉਪਰ ਦਿੱਤੇ ਡਾਕ ਜਾਂ ਈਮੇਲ ਪਤੇ 'ਤੇ ਸਾਨੂੰ ਸੰਪਰਕ ਕਰੋ।

Hindi

यदि आपको इस दस्तावेज़ का सारांश अपनी भाषा में चाहिए तो उपर दिये हुए नंबर पर फोन करें या उपर दिये गये डाक पते या ई मेल पते पर हम से संपर्क करें।

Bengali

আপনি যদি এই দলিলের একটি সারাংশ নিজের ভাষায় পেতে চান, তাহলে দয়া করে ফো করবেন অথবা উল্লেখিত ডাক ঠিকানায় বা ই-মেইল ঠিকানায় আমাদের সাথে যোগাযোগ করবেন।

Urdu

اگر آپ کو اس دستاویز کا خلاصہ اپنی زبان میں درکار ہو تو، براہ کرم نمبر پر فون کریں یا مذکورہ بالا ڈاک کے پتے یا ای میل پتے پر ہم سے رابطہ کریں۔

Arabic

الوصول على ملخص لهذا المستند بلغة،
فرجاء الاتصال برقم الهاتف أو الاتصال على
العنوان البريدي أو عنوان البريدي
الالكتروني أعلاه.

Gujarati

જો તમારે આ દસ્તાવેજનો સાર તમારી ભાષામાં જોઈતો હોય તો ઉપર આપેલ નંબર પર ફોન કરો અથવા ઉપર આપેલ ટપાલ અથવા ઇ-મેઇલ સરનામા પર અમારો સંપર્ક કરો.

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City Hall
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More London
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