

# **Network Rail monitor**

Quarter 4 of Year 1 of CP4, 10 January 2010 - 31 March 2010

## **and annual assessment 2009-10**



# Great Britain summary

## Overview

This Q4 2009-10 special edition of the Network Rail monitor gives our overall assessment of how Network Rail has performed throughout the year.

We have found the company's performance in 2009-10 to be mixed. We recognise the improvements and good progress that Network Rail made in the year on passenger safety, customer satisfaction, its response to crises such as the floods in November 2009 and early work on the enhancements programme. Network Rail missed five of the ten sector level regulated train performance requirements for 2009-10, though we accept it may well have delivered these were it not for the exceptionally severe winter weather. We have continuing concerns around asset management competence and weaknesses in timetable planning, all in the context of there being three worker and contractor fatalities during the year. We believe that Network Rail's performance in terms of efficiency and progress towards delivering the 21% improvement required in CP4 is unclear.

As usual, the monitor focuses on issues of Network Rail's delivery for which it is accountable under its network licence. But to complete the picture, we include a short overview of Network Rail's safety performance below. We will report in more detail on Network Rail and industry safety performance in July.

## A safe railway

Passenger safety generally was good, with lagging safety indicators moving in the right direction. Network Rail's management of level crossing risk was also good: progress was made closing some 400 user worked crossings and towards reducing risk at automatic open level crossings after the Halkirk triple fatality. We noted some encouraging use of technology at level crossings. Network Rail has

The monitor focuses on issues of Network Rail's delivery for which it is accountable under its network licence. We have used colour flags to show at a glance our current level of concern with an issue:



Network Rail delivery is satisfactory or good.



Network Rail delivery is currently unsatisfactory and/or we have some concerns about future delivery. We have raised the issue with Network Rail at a working level.



The issue is subject to special scrutiny, with intensive investigation and enhanced monitoring. We may have discussed potential licence concerns with Network Rail Directors.



We have major concerns about current and/or future delivery. We are considering, or have already decided to take formal enforcement action.

We welcome feedback on the content and format of this publication. Please address your comments or queries as follows:

### Safety:

Allan Spence on 020 7282 2086 or [Allan.Spence@orr.gsi.gov.uk](mailto:Allan.Spence@orr.gsi.gov.uk)

### Customer service and general comments:

Rob Plaskitt on 020 7282 2072 or [Rob.Plaskitt@orr.gsi.gov.uk](mailto:Rob.Plaskitt@orr.gsi.gov.uk)

### Train service performance:

Paul Hadley on 020 7282 2039 or [Paul.Hadley@orr.gsi.gov.uk](mailto:Paul.Hadley@orr.gsi.gov.uk)

### Developing the network:

Graham Richards on 020 7282 3943 or [Graham.Richards@orr.gsi.gov.uk](mailto:Graham.Richards@orr.gsi.gov.uk)

### Asset management:

Jim Bostock on 020 7282 2113 or [Jim.Bostock@orr.gsi.gov.uk](mailto:Jim.Bostock@orr.gsi.gov.uk)

### Statistics in this publication:

Matt Wikeley on 020 7282 0113 or [Matt.Wikeley@orr.gsi.gov.uk](mailto:Matt.Wikeley@orr.gsi.gov.uk)



# Great Britain summary

started to measure its safety culture using the RSSB toolkit and we welcome this also.

Regrettably, however, there were three fatal accidents to Network Rail's workers and contractors in the year. Our inspection program found significant failings in structures management and we issued an improvement notice requiring deficiencies to be addressed by March 2011. Inspection findings continued to expose weaknesses in track worker safety and we issued several enforcement notices for that. In total we issued five prohibition notices and twelve improvement notices - zero notices should be the aim of all duty-holders.

## Customer service

Responding well to its immediate customers (the passenger and freight train operators) is as important to Network Rail's long term success as delivering 'hard' regulated outputs. We welcome inclusion of customer and passenger satisfaction in its management incentive arrangements and the inclusion of a service culture stream in the company's transformation programme.

Network Rail's survey of passenger and freight train operator satisfaction showed a welcome improvement driven by better passenger train operator responses; average satisfaction is now 3.33 on a scale where 3 is neutral and 5 very satisfied. Freight operators remain generally less satisfied, the score only slightly up on the previous year. Operators scored Network Rail higher for the way it manages relationships including valuing the relationship, honesty, timeliness, being easy to work with and business understanding. As last year they were least satisfied with involvement in decisions and considered Network Rail to be poorly integrated and inflexible. Network Rail is rightly looking for substantial further improvements in all scores as the benefits of its transformation programme feed through.

Y

Y

Network Rail included passenger satisfaction in its management incentive arrangements for the first time. This uses satisfaction as measured by Passenger Focus surveys; 2009 scores were 1-2% up on the previous year which is encouraging. Of course overall satisfaction is influenced by many factors outside Network Rail's control. One area where it does have a significant impact is punctuality and reliability, where passenger satisfaction increased from 81% to 83% leaving 17% of passengers neutral or dissatisfied.

The company responded well to crises at times during the year. When floods cut off much road access to Workington in November it built and opened a temporary station within 10 days. There was much good work to keep services running during exceptionally severe winter weather. More recently the company postponed track works so that extra trains could run for passengers unable to fly during the disruption caused by the volcanic ash cloud. Network Rail is also working well with funders in responding to changes to requirements for its enhancement projects. And it has been the driving force with its industry partners on long-term planning issues through the new 'planning ahead' initiative.

Timetable development is a core role for Network Rail. While it handles most routine changes well we have concerns about its ability to take a strategic view of the optimal use of network capacity, based most recently on the time it has taken the industry to agree a new East Coast timetable. At the end of the year, introduction of Network Rail's new integrated train planning system caused significant timetabling problems for train operators and their customers. We are investigating the circumstances which led to

G

G

Y

YR

these problems and the company's plans to ensure that similar problems do not arise again<sup>1</sup>.

Passenger research shows that the industry is poor at providing useful information when services are disrupted. The industry recognises the urgent need for improvement, highlighted particularly during last winter's severe weather. Network Rail is playing a major part in the industry's plans to make significant improvement in this area. With the Department for Transport, we are holding the industry to account to deliver on this programme.

Y

During the year we pressed Network Rail to resolve difficulties reported by stakeholders in accessing accurate gauge information, for example to enable the design of new trains. It developed a comprehensive response and a new strategy for handling gauge information which we endorsed, but we have asked for a clear statement of expected turn-around times for typical information requests, with subsequent monitoring of service levels. We now require Network Rail to apply a similar approach to other areas of capability where similar problems remain, starting with power supply capability.

Y

## Train service performance

For much of 2009-10, the industry's overall performance in terms of punctuality (the public performance measure PPM), cancellations and significant lateness (CaSL) and delay was very good. After nine periods it seemed possible that the industry would end 2009-10 two years ahead of the improvement trajectories we set for CP4. But the severe weather in December and January caused performance to slump. In Scotland severe weather returned in period 12 and this caused particular problems in late February. As a

G

result, Network Rail missed five of its ten sector level regulated performance requirements for 2009-10.

We called on Network Rail to account for why it had fallen short of these requirements. We have now accepted<sup>2</sup> its evidence that the severity of conditions at times during the winter was genuinely exceptional, that it could not reasonably have been expected to meet all minimum performance requirements taking this into account, and that but for this factor it may well have delivered all the sector performance requirements. Our investigations did, however, raise concerns about how focused Network Rail is on meeting its aggregate freight obligations and we will be monitoring this closely.

Network Rail performance on the West Coast main line has been a serious concern throughout this year. After initially appearing insufficiently responsive to the needs of its customers for rapid improvements, and facing strong regulatory intervention from us and DfT, Network Rail has worked more closely with the operators. Special rapid response teams were established to mitigate the impact of asset failures while longer-term solutions were sought. Problems included continuing unreliability of axle counters, some types of new pointwork and power supplies. After an encouraging autumn, performance fell back but recent performance has been more encouraging and there are indications that the main asset reliability issues are beginning to come under control. We will continue to monitor this route closely until we are satisfied that sustainable good performance has been achieved.

YR

Towards the end of the year performance on the East Coast main line began to cause us all concern. Both First Capital Connect and

Y

<sup>1</sup> See: [www.rail-reg.gov.uk/upload/pdf/ITPS-investigation-letter-200510.pdf](http://www.rail-reg.gov.uk/upload/pdf/ITPS-investigation-letter-200510.pdf)

<sup>2</sup> See: [www.rail-reg.gov.uk/upload/pdf/MissedRegulatoryPerformanceReqs200910.pdf](http://www.rail-reg.gov.uk/upload/pdf/MissedRegulatoryPerformanceReqs200910.pdf)

# Great Britain summary

East Coast Trains asked us to intervene to apply pressure for early improvement. We held a meeting with Network Rail and three operators using the route and were pleased to see evidence of increased cooperation in understanding the problems and agreeing credible plans to deliver early improvements on all sides. We will continue to monitor progress.

We placed a new requirement on Network Rail in CP4 to reduce disruption to passengers from planned engineering work by 37% by March 2014 and to ensure that disruption to freight services should get no worse. Disruption fell during the year and at the end of 2009-10 the disruption indices were already better than the regulatory requirements for 2013-14. Network Rail has introduced some less disruptive working methods on the network but to some extent this very good result also reflects the deferral of engineering work and a relatively low level of enhancement activity. Network Rail therefore still faces a challenge to deliver its obligations in the later years of CP4.

## Developing the network

Although overall Network Rail is slightly behind its internal schedule for the enhancements programme, taken as a whole we believe it has made reasonable progress. In December the Glasgow to Kilmarnock project was finished on time and additional services were introduced.

Development work on some projects is behind schedule; in some cases this has been caused by Network Rail but in others it reflects dependence on third party funding or on Government rolling stock decisions.

Where projects overlap it is essential that these are properly integrated. On the western route projects include Reading station

area, Crossrail surface works, electrification, new 'super express' trains and resignalling with ERTMS. Network Rail has brought in new internal management arrangements and has introduced a high-level cross-industry management group to coordinate the planning and operation of these major projects. These are critically important initiatives and have our full support.

Physical work on Thameslink progressed reasonably well in 2009-10, notably installation of a new bridge deck at Blackfriars. An independent reporter review of progress on key output 1 concluded that Network Rail is unlikely to achieve the Blackfriars station 'substantially complete' milestone by March 2012 but this should not affect planned changes to train services. However, for the final stage Key Output 2 projected costs currently exceed the budget. Network Rail is working on revised plans for London Bridge to reduce costs.

Network Rail's work planning power supply upgrades on Anglia routes was very weak and we had to intervene to demand better progress; even then the company struggled to make the necessary improvements quickly. Work on West Anglia and Thameside has reached single option selection, important to remain on course to deliver by December 2011, but work on Great Eastern is more challenging and is taking longer.

2009-10 was a significant year for the GSM-R project. Network Rail faced technical challenges in the Strathclyde pilot scheme but GSM-R is now in operation across Strathclyde. It was successfully introduced onto Virgin Trains south of Crewe, rapidly producing evidence of reduced train delays. However concerns about the rollout timescale are growing, especially for routes south of the Severn-Wash line where existing radio systems cannot continue beyond 2012. Infrastructure works are progressing well, but

# Great Britain summary

Network Rail has found reaching commercial agreements with train operators for cab fitment to be difficult and much less progress has been made with this. It is now seeking bilateral agreements to allow work to begin while there is still scope to do so efficiently by making use of periods when the units are out of service for maintenance or refurbishment.

More detail on the full programme of enhancement projects is included in the body of this monitor.

Network Rail has worked well with passenger and freight train operators through the planning oversight group on long-term planning for the industry, and to coordinate industry input to governments' development of output specifications for the next control period. We strongly support this work and look forward to publication in June of the group's position on longer term strategy and the priorities for rail users and funders in CP5.

## Asset management

Asset reliability improved in 2009-10 despite the exceptionally severe winter. This has been a major contributor to the overall reduction in delays caused by Network Rail.

However, as we have continued to learn more about the state of Network Rail's asset management capabilities, including through its work to revise its asset policies and plans, we have concluded that it has more to do to achieve asset management excellence than we had previously believed. Key areas of weakness are continuing inability to optimise maintenance and renewals to achieve minimum whole-life costs, slow progress in addressing deficiencies in asset knowledge management and particular failings in the planning and delivery of sustainable structures management. We will work with Network Rail in the coming months to establish and articulate a

clear, challenging but deliverable trajectory towards best practice asset management by the company, meeting the priority requirements of the industry and its customers.

Network Rail found it hard to demonstrate that its revised asset policies are robust and sustainable and we had to press repeatedly for clear supporting rationales. However we have finally been convinced that all the policies except that for its structures (e.g. bridges) meet both tests. Network Rail has itself acknowledged that it cannot demonstrate sustainability for its structures policy. We are jointly commissioning the independent reporter to review this area in depth.

We have had concerns about the quality of its structures examinations, which has potential consequences for asset stewardship and safety. This led us to issue an improvement notice for its south eastern region in March. We believe Network Rail is learning the lessons from these failures and we shall continue to monitor progress jointly with them.

We particularly commend Network Rail's continued work to reduce the number of temporary speed restrictions, which ended the year at 170, less than half the figure of four years ago. This has made a significant contribution to better train performance. Last year we were critical of points reliability. Whilst this remains the largest single cause of infrastructure delay, this was down 11.8% compared to 2008-09. The high performance switch system equipment has seen considerable attention and the results suggest that many of the causes of failure have been resolved. Whilst overall axle counter reliability is still not as good as anticipated, the number of occasions when it leads to major disruption is falling. There are signs that Network Rail's sustained attention to identifying and

resolving the technical problems, working closely with the manufacturer Thales, is making progress.

Progress on the cab based signalling system trial on the Cambrian route has again been slower than planned, with further delays in commissioning and completion expected on 31 October 2010. We have called Network Rail to a joint meeting with DfT to explain how it will resolve the ongoing problems with this trial and we will monitor progress on this closely.

Y

## Expenditure and efficiency

Accurate calculation of Network Rail's efficiency is an important part of our assessment of the company's performance. Our determination for the control period assumes a 21% improvement in efficiency by March 2014. We will report on these issues in more detail in our annual efficiency and finance assessment in September, but at this stage it is not clear to what extent Network Rail has made real progress to deliver this requirement.

The main expenditure issues are that Network Rail spent £149m (17.7%) more on controllable opex than assumed in our determination, and £649m (21.4%) less on renewals, largely due to deferral of renewals work to later in CP4.

Y

The main efficiency issues are that for the same output requirements expenditure on controllable opex and maintenance combined was higher than our determination assumption. We had assumed an efficiency improvement of 3.0% whereas actual efficiency deteriorated by 2.5%. In its CP4 delivery plan Network Rail established a phasing of expenditure different from our determination. In particular, it budgeted for higher

operations/support functions expenditure in 2009-10 but greater efficiency savings over the remainder of CP4. Network Rail has the flexibility to re-phase expenditure in this way if it considers that this is the best way to meet delivery requirements, and it did meet its budget in 2009-10. We cannot yet judge the efficiency of renewals expenditure in that year, but we expect that the position may become clearer by the time we complete our annual efficiency assessment in September.

## Improving customer satisfaction

Responding well to its immediate customers (the passenger and freight train operators) is as important to Network Rail's long term success as delivering 'hard' regulated outputs. We therefore welcome the inclusion of customer satisfaction in its management incentive arrangements and the inclusion of a *service culture* stream in the company's transformation programme.

Network Rail commissions IPSOS Mori to undertake an annual survey of the satisfaction of its train operating company (TOC) and freight operating company (FOC) customers. The overall satisfaction measure compares 'very' and 'fairly' satisfied customers against 'very' and 'fairly' dissatisfied customers. This measure was first reported in 2009.

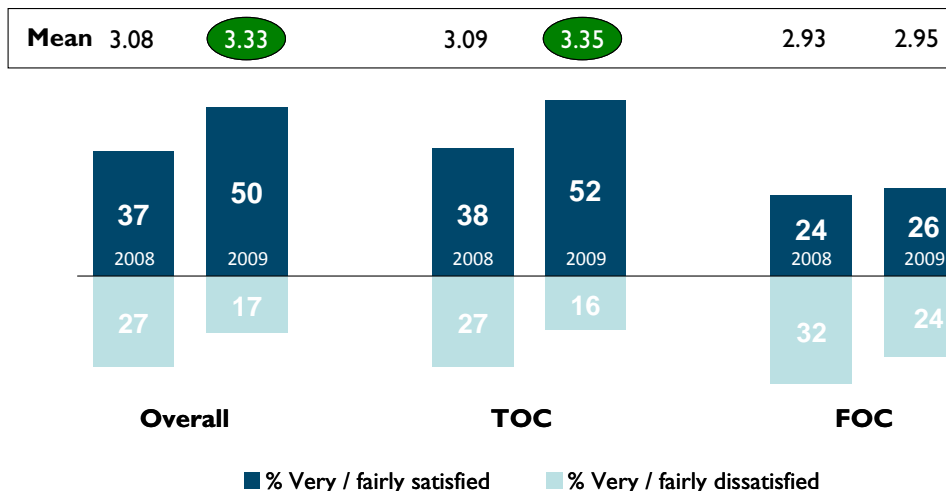
The overall mean satisfaction score improved significantly from 3.08 in 2008-09 to 3.33 in 2009-10, driven by improvement in TOC responses. FOCs remain generally less satisfied, with a mean score of 2.95 only slightly up on the previous year. Half of its customers were either 'very' or 'fairly' satisfied with Network Rail.

Operators scored Network Rail most highly for the way it manages relationships including valuing the relationship, honesty, timeliness, easy to work with and business understanding. As last year, they were least satisfied with involvement in decisions and considered Network Rail to be poorly integrated and inflexible.

We are pleased to see the significant year on year improvements in the TOC net satisfaction scores, but the lack of progress with FOCs is a concern. Network Rail is rightly looking for substantial further improvements in all scores as the benefits of its transformation programme feed through.

## Overall satisfaction with Network Rail

Mean scores (1 = very dissatisfied, 5 = very satisfied)

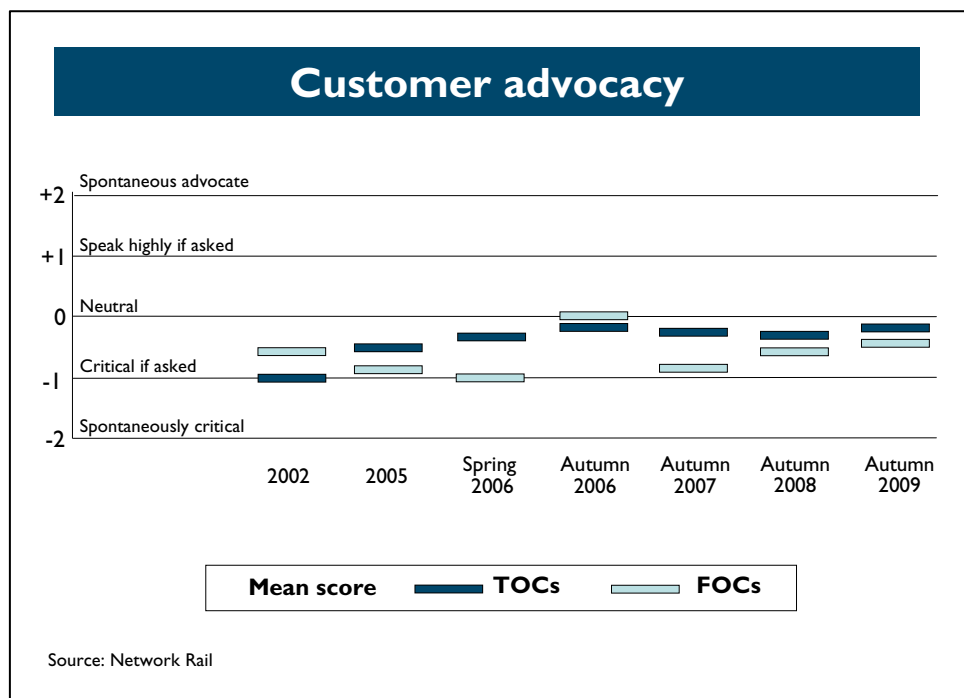


Source: Network Rail

The survey also reports overall satisfaction by customer and by operating route. Network Rail makes considerable use of these results. They are analysed and action plans are developed with individual customers. There is considerable variation between responses from different operators. For example scores for "values relationship" varied from 2.77 to 4.75 among the larger operators (on a scale of 1 to 5).

Over a longer period Network Rail has also reported customer views against a 5 point advocacy measure, its preferred measure up to last year. The pattern of results is similar with TOC advocacy

scores above those for FOCs; both show gradual improvements. We support the move to measuring overall satisfaction.



## Improving passenger satisfaction

In 2009-10 Network Rail included a passenger satisfaction target in its management incentive arrangements for the first time. We welcome this as it encourages the company to understand and respond to the full range of passenger requirements beyond delivering formal regulated outputs. The new measure is based on the average passenger satisfaction score over the autumn and spring results of the Passenger Focus National Passenger Survey.



The spring 2009 score was 81%, 1% up on spring 2008. The autumn 2009 score was 83%, 1% better than the previous year. These follow the usual seasonal pattern – spring figures are typically lower as fieldwork for the survey takes place shortly after the January fare increases and is also more likely to be influenced by weather-related service disruption.

The continuing improvement in the overall scores is encouraging, although the average (82%) was 0.4% below Network Rail's internal target. Of course, overall passenger satisfaction is influenced by a range of factors, many of them partly or entirely outside Network Rail's responsibility or control. One area where Network Rail has a significant impact is satisfaction with punctuality and reliability. This score increased from 81% in autumn 2008 to 83% in autumn 2009. Within this, long distance passengers' satisfaction increased most significantly, from 81% in autumn 2008 to 87% in autumn 2009.

The autumn survey included results for Network Rail managed stations – for which results are largely under Network Rail's influence. Although most scores had declined slightly since autumn 2008, the changes were within survey margins of error.

## Responsiveness

The company responded well to crises at times during the year. When floods cut off much road access to Workington in November it built and opened a temporary station within ten days. There was much good work to keep lines open and services running during exceptionally severe winter weather. More recently, since the end of the year, the company postponed track works to allow extra trains to run for passengers unable to fly during the disruption caused by the volcanic ash cloud.



Network Rail is also working well with funders in responding to an unexpected degree of post-HLOS change to requirements for enhancement projects. And it has engaged well with its industry partners on long-term planning issues through the new 'planning ahead' initiative.

## Timetable development

Timetable development is a core role for Network Rail. While it handles most routine changes well we have concerns about its ability to take a strategic view, based most recently on the time it has taken the industry to agree a new east coast timetable. The company needs to move beyond reacting to particular change requests to proactively considering the optimal use of network capacity. Of course other stakeholders must play their part in this, and we have initiated a cross industry review of the lessons to be learnt from the east coast experience.

At the end of the year, introduction of Network Rail's new Integrated Train Planning System caused significant timetabling problems for train operators and their customers. These included delays in publishing pocket timetables in good time for the May timetable change and led to some services being invisible to online users. We are investigating the circumstances which led to these problems, including the approach Network Rail took to managing risk, and the company's plans to ensure that similar problems do not arise again<sup>3</sup>.

## Information for passengers during disruption

Passenger research shows that the industry is poor at providing useful information when services are disrupted. Only around one



passenger in three is satisfied with the way delay is handled and improving this ranks fifth in passengers' priorities (after prices, punctuality, frequency and crowding). The industry recognises the urgent need for improvement, highlighted particularly during last winter's severe weather.

As part of the industry programme to improve information during disruption, Network Rail is funding a project to provide all station Customer Information Systems (CIS) with information from Darwin, the National Rail Enquiries real time database. This database takes information from a number of sources including the base timetable, train movement data and local manual inputs making it the most up to date system for real time train information. Phase I of the national rollout of Darwin will feed the CIS at 17 Virgin Trains stations with real time information by the end of November 2010.

## Network capability information for stakeholders

Network Rail acknowledges the need to maintain accurate records of network capability parameters, both for its own use and for its stakeholders. It is obliged to maintain the published capability into the future, subject only to network change processes, so that its customers can plan their businesses with a reasonable degree of assurance.

During the year we pressed Network Rail to resolve difficulties reported by stakeholders in accessing accurate gauge information, for example to enable the design of new trains. We asked the independent reporter AMCL to review Network Rail's process for providing this. AMCL's report highlighted areas for improvement. Network Rail developed a comprehensive response and a new strategy for handling gauge information in December 2009.



<sup>3</sup> See: [www.rail-reg.gov.uk/upload/pdf/ITPS-investigation-letter-200510.pdf](http://www.rail-reg.gov.uk/upload/pdf/ITPS-investigation-letter-200510.pdf)

We endorsed the strategy on 1 March 2010, noting Network Rail's confirmation that it will continue to publish 'W' gauge information alongside information on the types of train that are cleared for particular routes - something freight customers were keen to retain. However, we considered that Network Rail's proposals still needed to address some outstanding concerns. For example, it needs to pay attention to 'soft' customer service issues as well as technical and IT systems interfaces. In particular, we have asked for a clear statement of expected turn-around times for typical information requests, once the new processes are in place, with subsequent monitoring of service levels.

We now require Network Rail to apply a similar approach to other areas of capability where similar problems remain, starting with power supply capability.

It now dealing with these points and we will monitor progress through industry stakeholder workshops.

## Stations

There is anecdotal evidence that works at stations can be done more cheaply and quickly by train operators than by Network Rail. Network Rail supports the idea of others doing station works in principle, but it is not yet widespread. Working with Network Rail and ATOC, we have been investigating whether there are cost differences for works at stations and what non financial barriers exist to operators. The conclusions of this work are due shortly; we will want to see them implemented to help drive forward improvements at stations.



# Train service performance

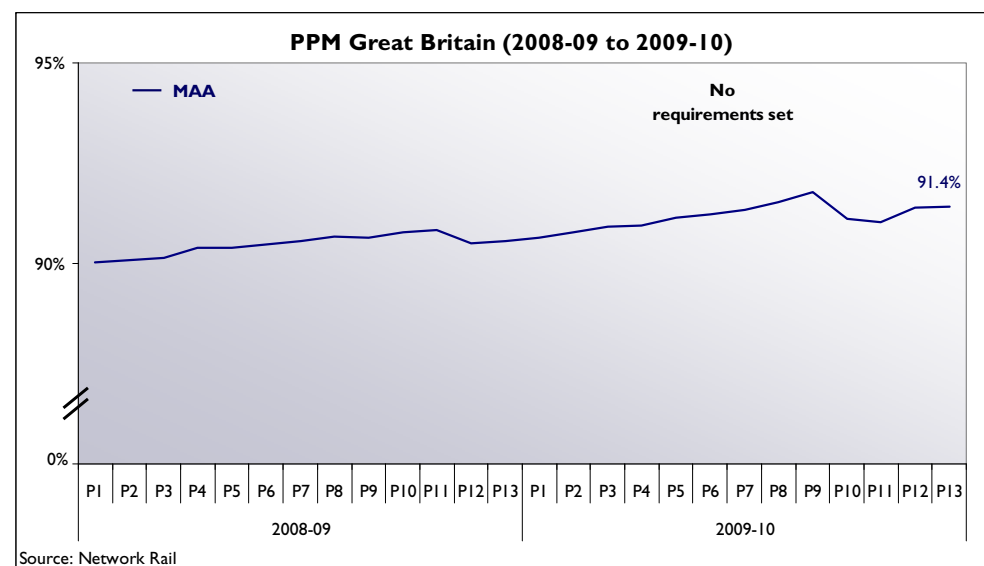
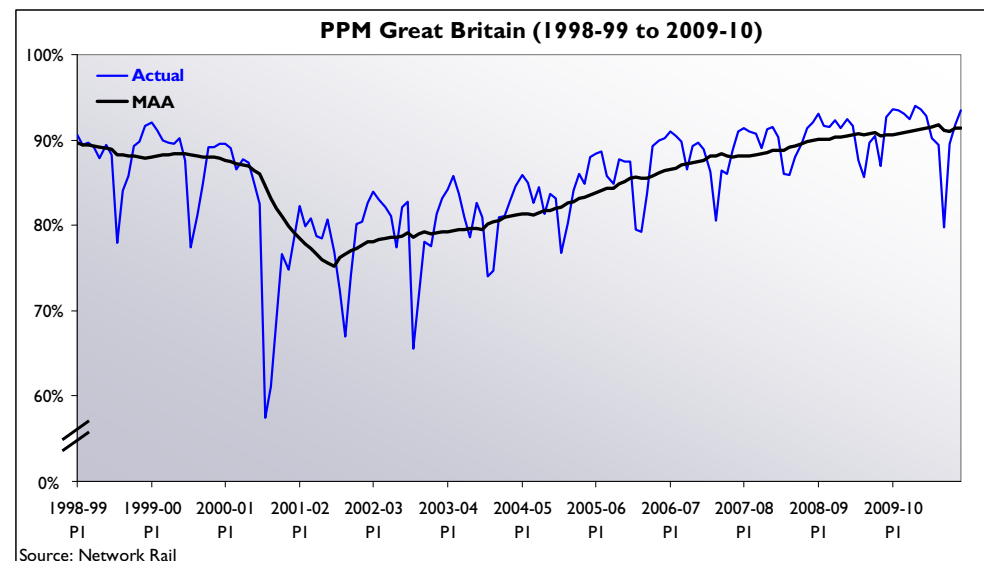
## Overview

For much of 2009-10, Network Rail's overall performance in terms of punctuality (the Public Performance Measure PPM), cancellations and significant lateness (CaSL) and delay was very good. After nine periods it seemed possible that the industry would end 2009-10 two years ahead of the improvement trajectories we set for CP4. But the severe weather in December and January caused performance to slump. In Scotland severe weather returned in period 12, causing particular problems in late February. As a result, Network Rail missed five of the ten sector level regulated performance requirements for 2009-10.

We called on Network Rail to account for why it had fallen short of these requirements. We have now accepted its evidence<sup>4</sup> that the severity of conditions at times during the winter was genuinely exceptional (especially in period 10 and over a longer period in Scotland), that it could not reasonably have been expected to meet all minimum performance requirements taking this into account, and that but for this factor it may well have delivered all the sector performance requirements. However we do have reservations about how focused Network Rail is on meeting its aggregate freight performance obligation. We have therefore asked the company to report to us quarterly on its progress against this commitment.

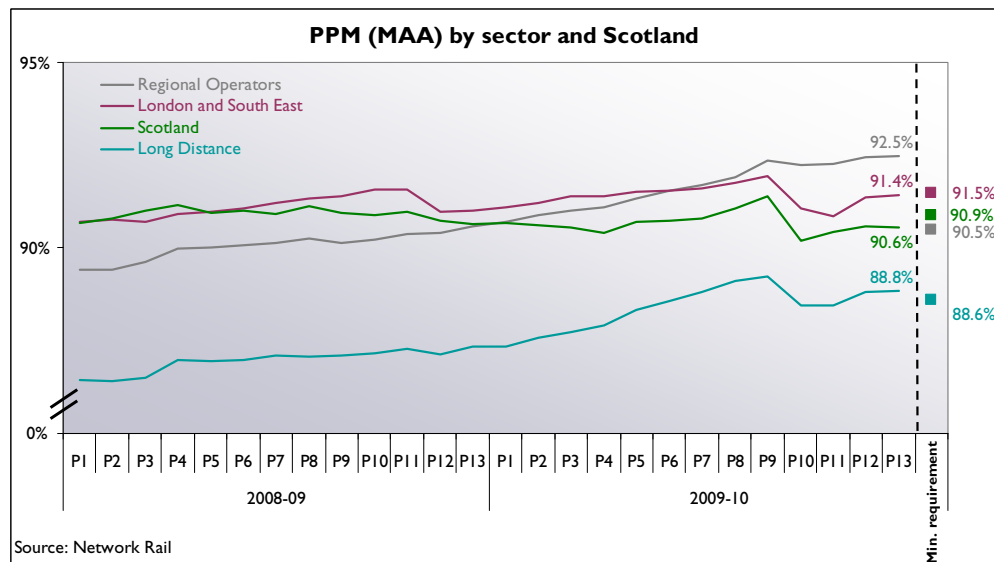
## Public Performance Measure (PPM)

Despite the severe weather, the long term improving trend in train punctuality continued last year. The PPM Moving Annual Average (MAA) for the whole network (not itself a regulatory KPI) has increased by more than 15% since 2001 and reached a record 91.4% in 2009-10.



<sup>4</sup> See: [www.rail-reg.gov.uk/upload/pdf/MissedRegulatoryPerformanceReqs200910.pdf](http://www.rail-reg.gov.uk/upload/pdf/MissedRegulatoryPerformanceReqs200910.pdf)

# Train service performance



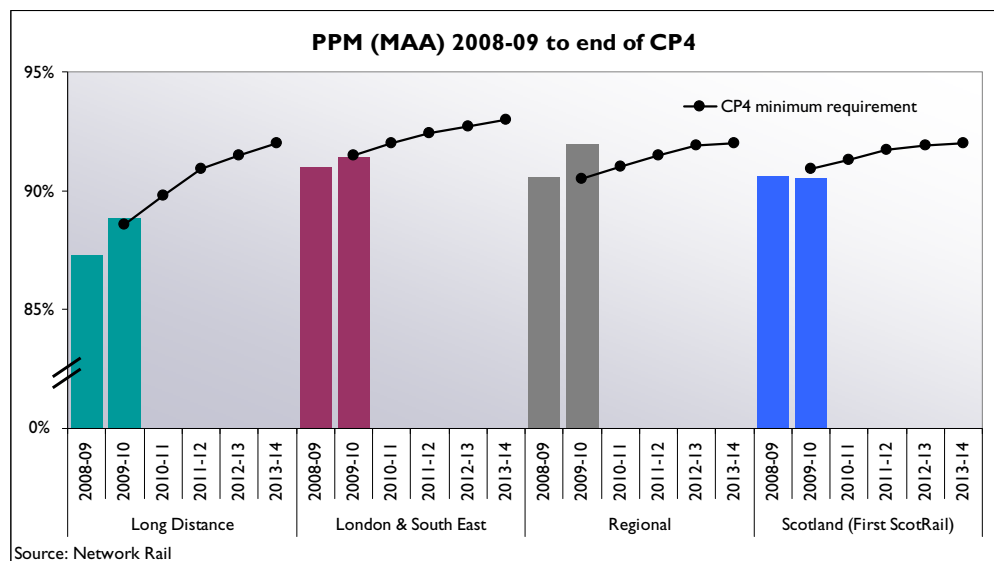
At the end of period 9 all sectors appeared to be on track to achieve the end of year regulatory requirements. But exceptionally severe weather, mainly in period 10, resulted in Network Rail missing the PPM requirements in two sectors – London & South East and Scotland (where extreme conditions occurred over a longer period).

## West Coast performance

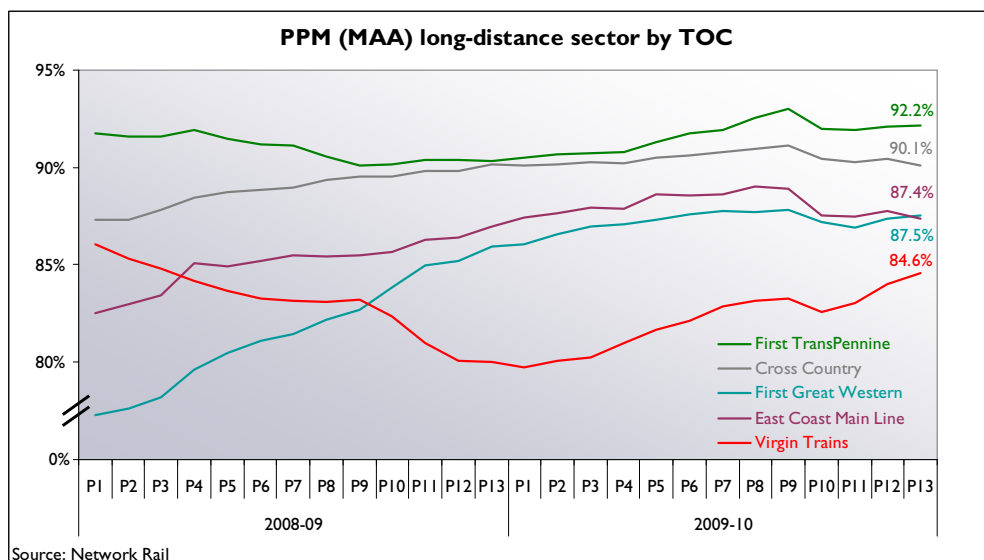
Network Rail performance on the West Coast main line has been a serious concern throughout this year. After initially appearing insufficiently responsive to the needs of its customers for rapid resolution of these problems, and facing strong regulatory intervention from ORR and DfT, Network Rail has worked more closely with Virgin Trains and the other operators. Special rapid response teams were established to mitigate the impact of asset failures while longer-term solutions to the underlying reliability problems were sought. These problems included continuing unreliability of axle counters, some types of new pointwork and power supplies.



After an encouraging autumn performance fell back despite the continued use of special rapid response teams. But performance during the worst of the snow was comparable to that on other routes, even though Virgin Trains chose to schedule a full service rather than make use of emergency timetables. Recent performance has been more encouraging and there are indications that the main asset reliability issues are beginning to come under control. We will continue to monitor this route closely until we are satisfied that sustainable good performance has been achieved.



# Train service performance



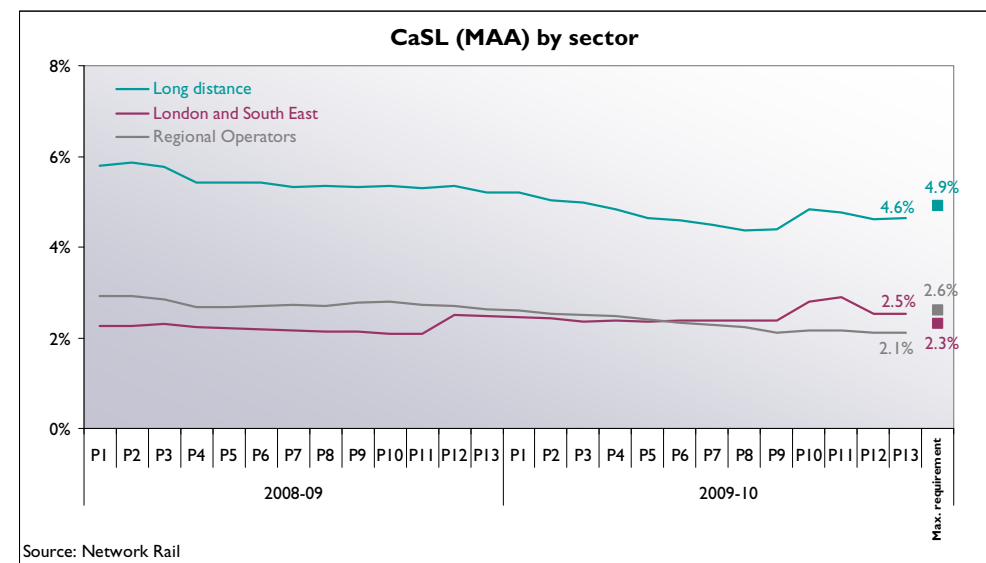
## East Coast performance

Towards the end of the year performance on the East Coast main line began to cause concern. In March First Capital Connect asked us to intervene to apply pressure for early improvement, and in April we had a similar approach from Directly Operated Railways which runs East Coast Trains. We held a meeting with Network Rail and three operators using the route in May. We were pleased to see evidence of increased cooperation between the parties in understanding the problems and agreeing credible plans to deliver early improvements on all sides. We will continue to monitor progress closely.

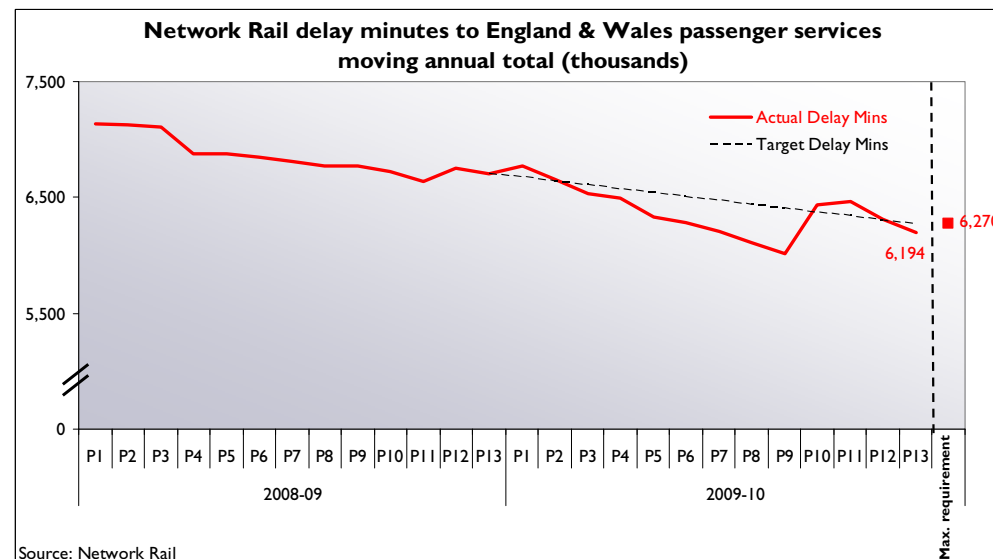
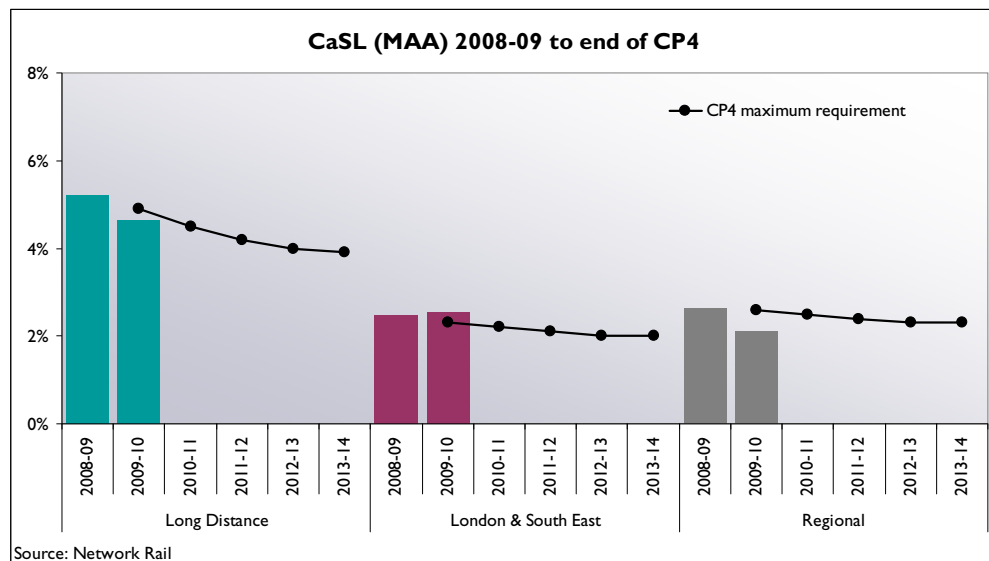
## Cancellations and Significant Lateness (CaSL)

CaSL improved towards the end of the year, following a spike due to the severe weather in period 10.

The CaSL requirements for the Long Distance and Regional sectors were met in 2009-10. London & South East CaSL missed the end of year requirement of 2.3% by 0.2%, third rail electrified routes being hit particularly hard by the weather. We are, however, content that were it not for the extreme weather Network Rail would have met that requirement.



# Train service performance

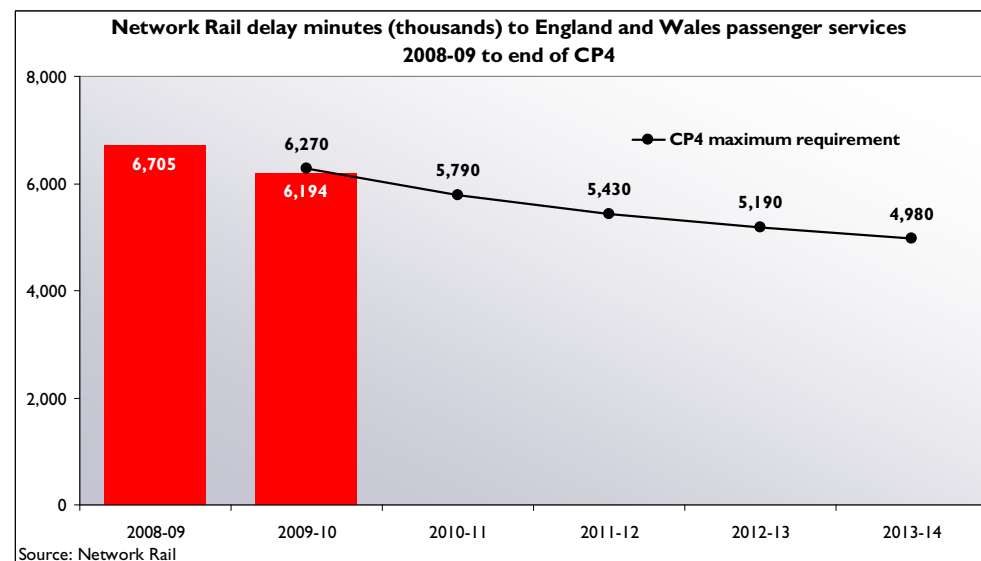


## Network Rail delay to passenger and freight trains

Delay to passenger trains, attributable to Network Rail, in England & Wales was running well ahead of the regulatory requirement at the end of period 9. In the event the end of year requirement was achieved, despite the extreme winter conditions.

This is a very encouraging start to the control period, over which Network Rail must deliver a further reduction of 20% in the delay minutes for which it is accountable.

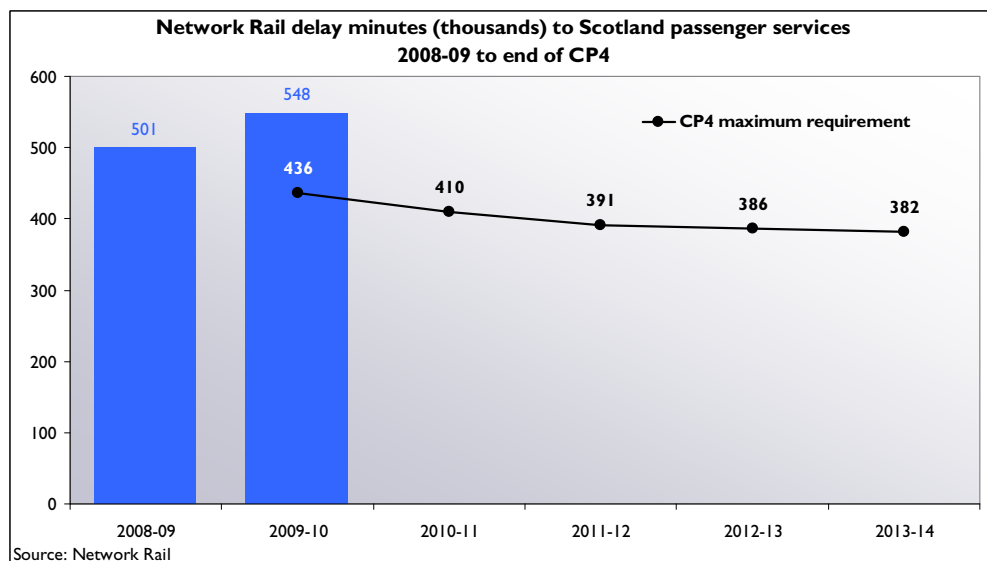
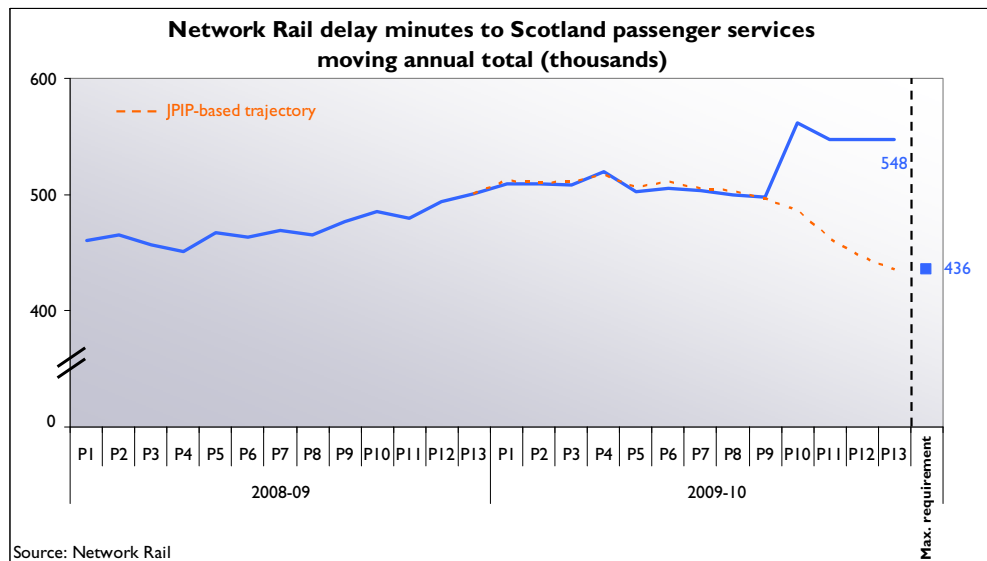
Delays to passenger services in Scotland, attributable to Network Rail, exceeded the maximum level we set for 2009-10. As discussed above, we have accepted Network Rail's evidence that this was essentially a consequence of exceptionally severe winter conditions.



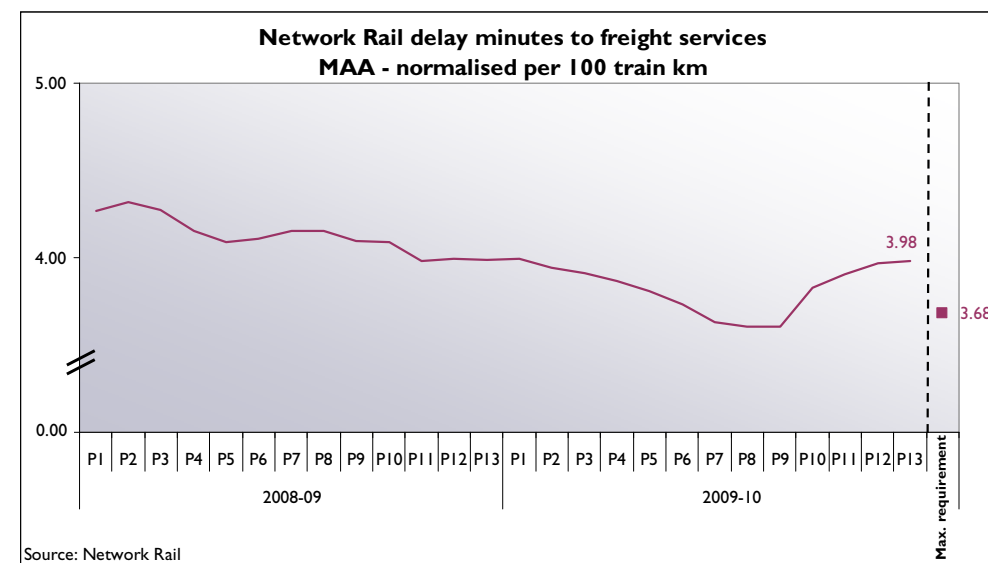
## Network Rail monitor

Quarter 4 of Year 1 of CP4, 10 January 2010 - 31 March 2010  
and annual assessment 2009-10

# Train service performance

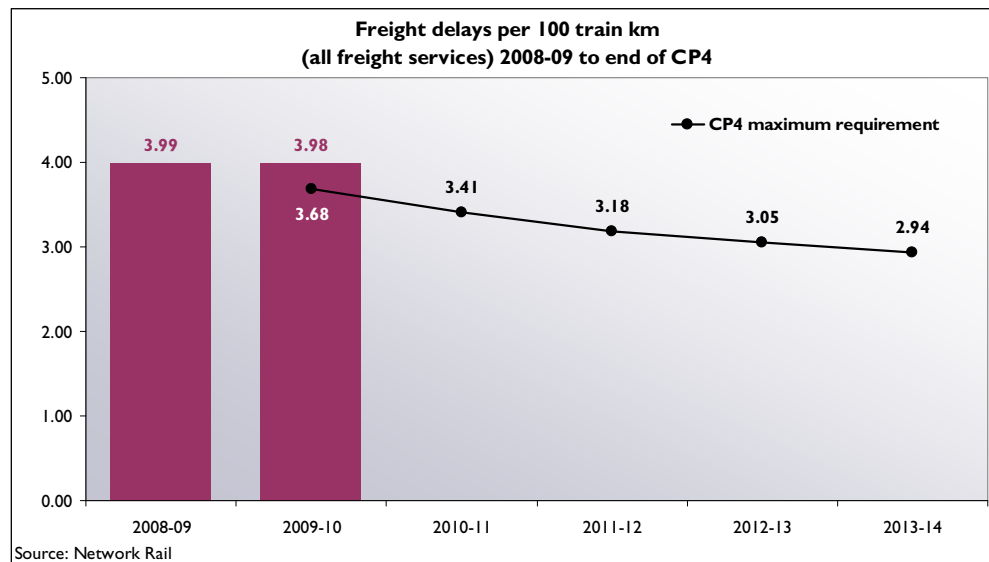


Similarly, delay to freight trains (normalised in relation to traffic) had been running ahead of trajectory until period 9. It subsequently fell behind due to the extreme weather and a succession of major incidents on principal freight routes, from which it did not recover. We have reviewed Network Rail's explanation for missing this requirement and we are satisfied that this was essentially due to extreme winter conditions. However, we have concerns about how focused Network Rail is on meeting its aggregate freight performance obligation. We have therefore asked the company to report to us quarterly on its progress against this commitment.



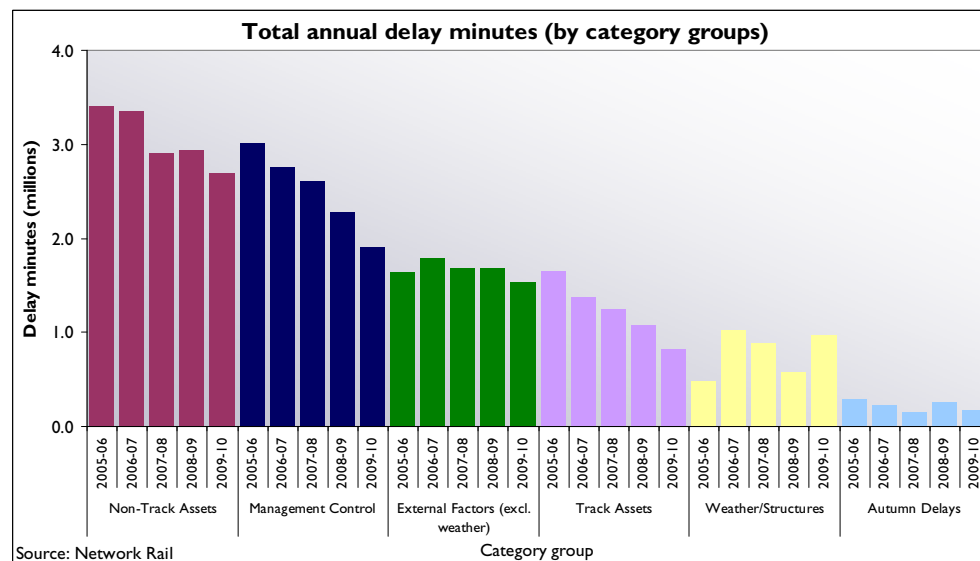
# Train service performance

Network Rail will need to make a significant improvement in the remainder of CP4 to meet its freight delay obligations.



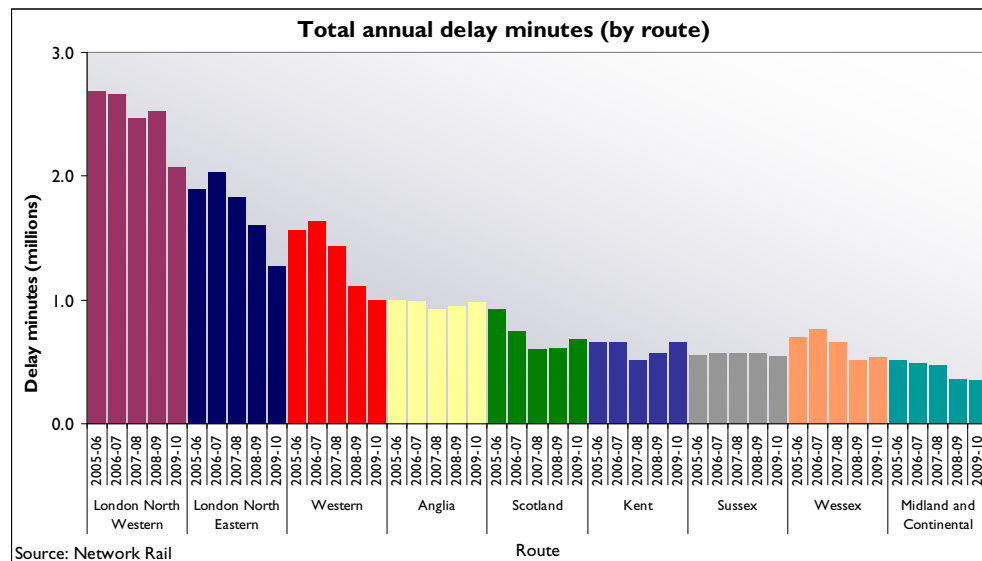
## Delay causation

There has been a welcome improvement in delay minute performance across all categories of delay, bar weather and structures.



# Train service performance

Performance by Network Rail route in 2009-10 was more mixed. Anglia, Scotland and Kent routes all saw deterioration in delay minute performance. In Kent, management control including operational planning contributed to increasing delays. Non track asset delays in Anglia were also worse this year, particularly those due to track circuit failures. But in all cases the most significant increase in delays was caused by the severe weather.



## Possession overruns - reduced disruption

In response to enforcement action taken following the possession overruns in January 2008, Network Rail developed a plan for improving project delivery which was implemented by the company in timescales agreed with ORR. Subsequent audits by the independent reporter have confirmed that the plan is robust and embedded in the organisation. However, observations and recommendations are highlighted<sup>5</sup> for Network Rail's review to ensure continual improvement and further reduce the likelihood and effect of engineering overruns.

Network Rail has been tracking the effects of its new arrangements through delay and cancellation data, adjusting the results to allow for fluctuations in expenditure. Compared to 2007-08 (the last year before Network Rail started introducing its new arrangements), delays due to possession overruns were 56% lower in 2009-10 and cancellations were 63% lower. Compared to 2008-09, delays were 4% better and cancellations were 6% worse.



<sup>5</sup> See: [www.rail-reg.gov.uk/upload/pdf/halcrow-engineering-work-audit-260510.pdf](http://www.rail-reg.gov.uk/upload/pdf/halcrow-engineering-work-audit-260510.pdf)

# Train service performance

## Network availability - reducing disruption

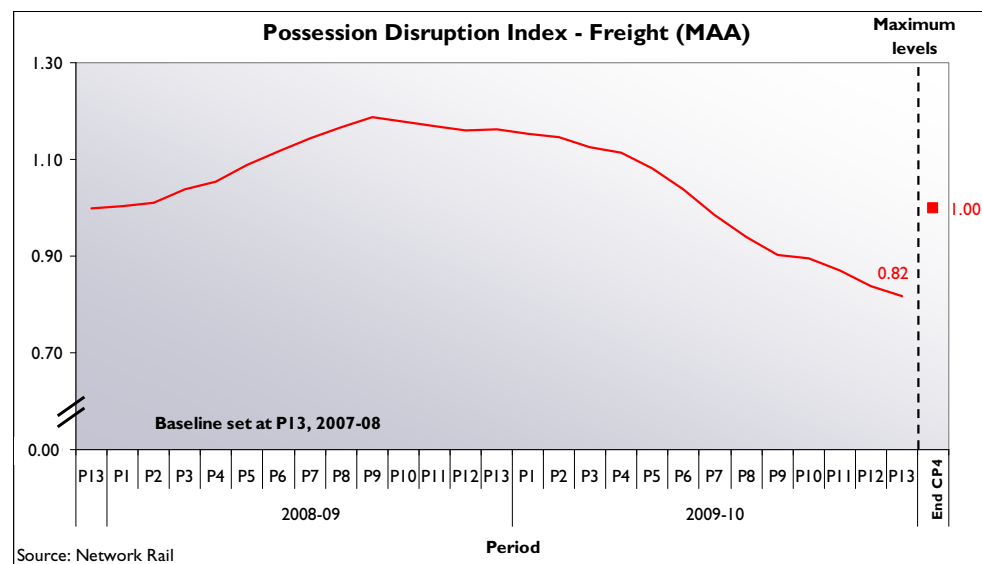
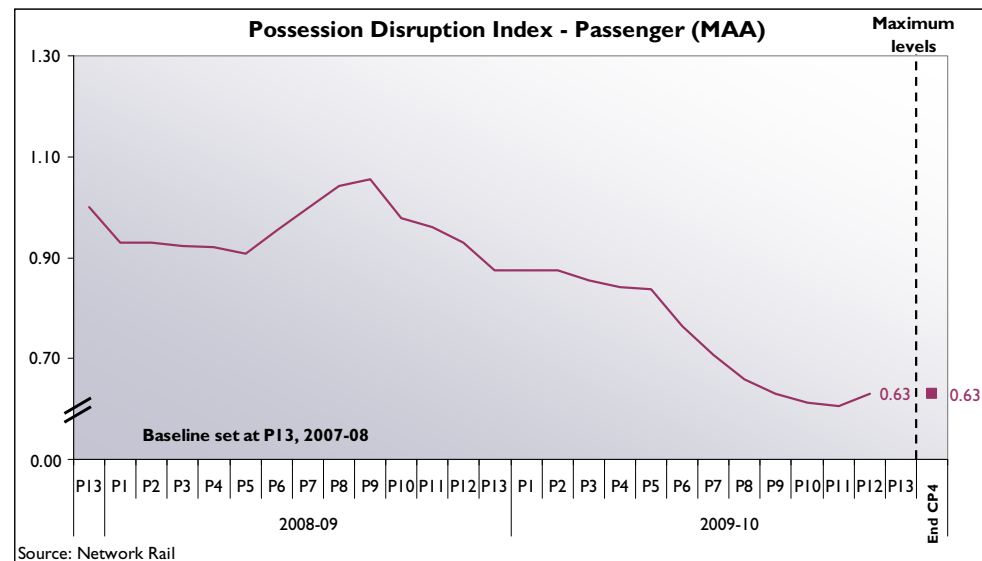
We placed a new requirement on Network Rail in CP4 to reduce disruption to passengers from planned engineering work (as measured by the possession disruption index PDI-P) by 37% by March 2014. This should lead to fewer route diversions and bus replacement services. We also required that disruption to freight services (as measured by the PDI-F index) should get no worse.

Levels of disruption to both passenger and freight services from planned engineering work have fallen during the year and at the end of 2009-10 the disruption indices were already better than the regulatory requirements for the end of the control period.

Network Rail has introduced some less disruptive working methods on the network. But to some extent this very good result also reflects the deferral of some engineering work while Network Rail reviewed its asset policies and a relatively low level of enhancement activity in the first year of CP4. Network Rail therefore still faces a challenge to deliver its obligation in the later years of CP4.

Network Rail has now set out its more detailed plans to deliver and sustain the improved availability required. A key element of this is development of a management tool this summer which will give greater visibility and confidence about the effect individual changes and projects will have on network availability.

Although there are no specific network availability targets for Scotland, it is expected that disruption will fall in line with the rest of the network as new approaches are implemented on a system-wide basis. Disruption to First ScotRail services in 2009-10 was well down on the last two years, largely because there was no requirement for major blockades for re-signalling work as seen in Glasgow around New Year 2008 and 2009.



## Network Rail monitor

Quarter 4 of Year 1 of CP4, 10 January 2010 - 31 March 2010  
and annual assessment 2009-10

## Overview

In keeping track of Network Rail's progress with delivery of its programme of enhancement projects we monitor against milestones in its delivery plan. These do not necessarily align with financial year ends so there is no simple measure of annual progress against the delivery plan. Although overall it is slightly behind its internal schedule, taken as a whole we believe Network Rail has made reasonable progress. In December the Glasgow to Kilmarnock project was finished on time and additional services were introduced. Development work on some projects is behind schedule; in some cases this has been caused by Network Rail but in others it reflects dependence on third party funding or on rolling stock decisions being taken by Government.

Over the year Network Rail has reorganised its business to take a consistent approach to sponsorship and reviewed its project control processes. These initiatives aim to ensure project definition for schemes in development is well governed and robust. We welcome the company's approach to ensuring efficient delivery from an early stage of project development, and we would like to see the benefits of these activities brought into effect quickly.

Where enhancement projects overlap it is essential that these are properly integrated. One of the most complex examples is on the Western route. Major enhancements are underway at Reading, Crossrail surface works and the electrification of the Great Western main line to Swansea are planned, new 'super express' trains are intended for the route and a radically new approach to signalling is to be rolled out. Network Rail has brought in new internal management arrangements and has introduced a high-level cross-industry management group to coordinate the planning and

G

operation of these major projects. These are critically important initiatives and have our full support.

The scale of the delivery challenge continues to grow. Expenditure on projects committed in the CP4 delivery plan is due to peak in 2011-12. To this may be added major new government-funded projects such as electrification and Crossrail which will substantially stretch Network Rail's abilities beyond the level of challenge established by PR08. Through the independent reporter we are tracking Network Rail's development of the necessary capabilities to deliver the full programme. The company needs to bring quickly into full effect the benefits of its reorganisation and the tools and processes required to meet the growing challenge of delivery.

## England & Wales

### Network Rail discretionary fund

The December 2009 update to the delivery plan included a list of 45 schemes that were authorised to draw down from the fund. One such, the Tunbridge Wells turnback facility, was completed in time for the timetable change in December enabling more express trains to run to London. We are undertaking an efficiency review of a sample of schemes from this fund, which will inform our efficiency assessment later this year.

G

### National stations improvement programme

Steady progress continues on this programme with 20 schemes completed by the end of the year and a further 103 in development. Network Rail established a cross industry board and has facilitated local delivery groups. To date about two thirds of the funds have been allocated. Arrangements to allocate the remaining funds among the local delivery groups will be finalised shortly.

G

# Developing the network

## Strategic freight network

Progress on the Felixstowe to Nuneaton project has been made with milestones completed on schedule. The development of a single option is now expected six months earlier than originally planned.

G

## Access for all

A total of 42 stations were complete at the end of 2009-10. This represents good progress towards delivering Network Rail's obligations for CP4. We are currently undertaking an efficiency review of a sample of schemes in terms of cost, programme and outcome. This will be used to inform our efficiency assessment of this programme before any decision is taken on whether funding can be brought forward to complete all stations in CP4 rather than by the first year of CP5.

G

## King's Cross

Good progress was made in 2009-10 with some challenging redesign needed for the 'western range' office block. Overall this project is on schedule for the western concourse to be in use by December 2011 and the southern square reconfigured by September 2013. Work progressed on schedule leading to commissioning of a new platform in May 2010, which will allow work to commence on the remaining platforms and increase capacity in the longer term.

G

## West Coast main line committed schemes

Progress has been made on Bletchley remodelling with the selection of a single option completed on schedule by March 2010. Network Rail is on course to have the infrastructure in use by June 2013.

G

Work on the remodelling of Stafford/Colwich to take account of amended scope and output requirements agreed with the DfT has significantly delayed the development of options. Time taken to develop an alternative solution will have been well spent if it results in a more efficient and effective outcome. We expect a request to change the delivery plan and will assess this, taking account of responses from key stakeholders, to ensure that a workable scheme has been developed.

## Thameslink

Construction work on the Thameslink project progressed reasonably well in 2009-10, notably the installation of a new bridge deck at Blackfriars station during the Christmas 2009 blockade. An independent reporter has recently reviewed progress on delivery of key output 1 and concluded that it is delicately poised<sup>6</sup>. It considers that Network Rail is unlikely to achieve the Blackfriars station 'substantially complete' milestone by March 2012 but this should not affect planned changes to train services. Network Rail continues to review its plans and we will monitor this together with DfT and other industry stakeholders.

Y

However, for the final stage Key Output 2 projected costs exceed the budget. Network Rail and DfT have worked together to challenge these costs. Network Rail is working on revised plans for London Bridge to reduce costs.

## Intercity express programme – infrastructure works

Work has progressed on this programme with a number of actions completed on schedule. However there is now a delay to detailed design pending the outcome of the independent value for money review commissioned by government, due to report shortly.

Y

<sup>6</sup> The report can be found at [www.rail-reg.gov.uk/upload/pdf/enh-1100tlink-170510.pdf](http://www.rail-reg.gov.uk/upload/pdf/enh-1100tlink-170510.pdf)

# Developing the network

## Crossrail

The Crossrail protocol was established in November 2009 and Network Rail has been working with Crossrail Limited to establish a target cost and baseline plan for the surface works on the rail network to the west and east of the core section of tunnel.

### Reading area redevelopment

Enabling works have begun but commissioning of the station platforms will be later than originally expected as a result of uncertainty over the depot specification and plans for rolling stock. Network Rail has agreed a new depot specification with the DfT and a revised date for delivery of the depot was approved.

G

### Western improvements programme

We have been concerned about delays in the development of the Cotswold line re-doubling project this year. Network Rail has discussed a revised delivery schedule with First Great Western and we expect a request to change the delivery plan shortly. The project is now fully authorised by Network Rail and it expects to deliver in two phases in June and August 2011.

Y

Selecting options for the Westerleigh junction to Barnt Green linespeed improvements was delayed this year as a result of track surveys being completed later than scheduled by Network Rail. We are expecting Network Rail to recover this slippage and ensure project delivery by the December 2012 timetable change.

### England & Wales electrification schemes

Following the Secretary of State's announcement of the Great Western and North West England electrification projects, we have worked with Network Rail and DfT to establish how costs should

be determined and how the projects should be funded. We have written to both parties summarising the approach<sup>7</sup>.

### Birmingham New Street

Whilst good progress was made this year on obtaining statutory consents, there were some delays to the completion of the detailed design and enabling works. However, we expect Network Rail to recover this slippage and ensure the main concourse is open for use by passengers in March 2015.

G

### Southern platform lengthening

Good progress was made this year on the Kent platform lengthening projects, with completion of a single option for most of the works completed on schedule and Network Rail is on course to complete the works on time.

However, work to develop a single option for the integration of Waterloo International has been delayed as a result of revising the possession regime and agreeing access arrangements with a third party lessee.

Y

### Power supply upgrade

Network Rail's work on planning power supply upgrades on the Anglia routes was very weak and we had to intervene to demand better progress; even then the company has struggled to make the necessary improvements quickly. Network Rail's work on West Anglia and Thameside has reached single option selection, which is important to remain on course to deliver by December 2011. However, its work on Great Eastern is more challenging and has taken longer to reach a single option selection.

Y

<sup>7</sup> The letter is available at [www.rail-reg.gov.uk/upload/pdf/electrification-projects-260410.pdf](http://www.rail-reg.gov.uk/upload/pdf/electrification-projects-260410.pdf)

# Developing the network

## Southern capacity

Although Network Rail has made progress on Gatwick Airport remodelling in 2009-10, delays to agreeing the third party funding will have a knock-on effect to future milestones and final delivery. The company has been working with the airport authority and other stakeholders and an agreement is expected soon.

Y

## East Coast main line improvements

The programme of improvements on the East Coast main line is work at an early stage of development and Network Rail has been undertaking thorough reviews to ensure scope and costs are further refined to ensure efficient delivery. While work is progressing we have concerns about the rate of development for options on the joint line and the impact this will have on its delivery. Cross Country Trains has also expressed concerns about York/Holgate junction and we are monitoring these discussions closely to ensure that the scheme is sufficient to deliver the output obligations.

## East Coast main line overhead line electrification

There have been slippages to the delivery milestones for this project mainly as a result of changes to assumptions around possession arrangements and the power supply upgrade strategy (notably related to outstanding decisions on IEP and Thameslink). This may be reasonable, but we wish to understand the issues more fully and will be investigating further.

## St Pancras to Sheffield line speed improvements

Over the year, Network Rail has developed options for the linespeed improvements. This has led to a number of potential changes to the outputs, some of which East Midlands Trains has concerns about. We expect Network Rail to address these issues

Y

before we will consider approving any changes to the enhancements delivery plan. Network Rail remains on course to deliver its obligations by December 2013.

## Nottingham resignalling

Development of a single option was completed this year. With prior agreement with affected operators, Network Rail also obtained our approval to delay the commissioning blockade until summer 2013 to avoid disruption during critical periods, such as the December Christmas market in Nottingham and the London Olympic Games.

G

## Midlands improvement programme

Third party funding for the relocation of Bromsgrove station has not been agreed and this is delaying the development of the Bromsgrove electrification scheme.

## Northern urban centres

There have been significant delays on the design work for the Northern urban centre schemes because of uncertainty about rolling stock availability, which is outside Network Rail's control. This is continuing to put pressure on both the cost and schedule of these programmes of work.

Y

## North London line

Good progress has been made and the project is broadly to plan with the exception of Highbury and Islington station which is behind schedule. Network Rail has a recovery plan in place and this is under daily review.

G

## Global System for Mobile telecommunications - Railway (GSM-R)

2009-10 was a significant year for this project. Network Rail had to overcome some serious technical challenges in the Strathclyde pilot

Y

scheme. Solutions have now largely been identified and GSM-R is now in operation across the whole Strathclyde area. GSM-R operation was successfully introduced onto Virgin Trains south of Crewe, rapidly producing evidence of reduced train delays, demonstrating the benefits of the system to the industry as a whole.

However, concerns about the rollout timescale are growing, especially for routes south of the Severn-Wash line where existing radio systems cannot continue beyond 2012. Infrastructure works are progressing well, but Network Rail has found reaching commercial agreements with train operators for cab fitment to be difficult and much less progress has been made with this element of the project.

On 19 April Network Rail issued its network change notice (NCN5) for the national rollout of GSM-R. This was supported by an industry meeting on 30 April. It is now encouraging operators to enter into bilateral agreements to allow work to begin on equipping their vehicles while there is still scope to do so efficiently by making use of periods when the units are out of service for maintenance or refurbishment.

The latest information to support roll out is available at the new website [www.gsmronline.com](http://www.gsmronline.com).

## Scotland

### Tier 3 project development

Progress on schemes through this fund continues with rail enhancements on the Highland main line being added during the year.

### Small projects fund

Network Rail has developed a number of schemes with Grangemouth Branch improvements in an advanced stage of delivery during 2009-10.

### Airdrie to Bathgate

There have been programme challenges on the Airdrie-Bathgate project. With our encouragement, Network Rail acted to improve the probability of on time delivery and good progress was being made until Christmas 2009. Subsequent prolonged severe weather caused delay and potential risks to delivery. Network Rail and its contractors have, though, agreed a revised integrated plan which is forecast to deliver to meet the start of train services on 12 December 2010. We are continuing to monitor this closely.

Y

### Paisley corridor improvements

Following the cancellation of the branch line element of the Glasgow Airport Rail Link by the Scottish Government, Network Rail updated its delivery plan with a revised scheme. Good progress was made throughout the year on the enabling works and Glasgow Central works and Network Rail is on course to deliver the revised scheme on time.

G

### Borders railway

Network Rail has been discussing the scope of works and delivery date with Transport Scotland for the connection between the new Borders Railway and the national network. Once this is agreed the delivery plan will be updated to reflect the company's obligations.

G

### Glasgow to Kilmarnock

A twin tracked section of railway between Lugton and south of Stewarton capable of supporting operation of half hourly passenger

G

services between Kilmarnock and Glasgow was delivered on schedule in December 2009. Additional works included: new platforms at Dunlop and Stewarton stations to accommodate six car trains, the re-opening of a disused underpass and remedial works to a number of structures. Renewal works at Stewarton station were combined with this scheme. Tragically, a worker, employed by SB Global Services was fatally injured on 13 April 2010, when the cherry picker he was using toppled over. The company was working on contract to Network Rail, carrying out grouting works on the face of Stewarton Viaduct. ORR is conducting a joint investigation with BTP.

## Other Transport Scotland Tier 3 schemes

We are currently discussing costs and monitoring arrangements for the Edinburgh to Glasgow Improvement Project with Transport Scotland and Network Rail. The Gogar station design and Haymarket tunnels development is advancing.

Ayrshire Inverclyde infrastructure works for introducing Class 380 trains have progressed throughout the year.

## Investment framework

Network Rail made good progress on developing template contracts for third party investment in consultation with a number of stakeholders. We approved these in February 2010. We believe that these new templates represent a significant improvement for investors: they are clearer and provide stronger incentives on Network Rail with a fairer and more logical balance of risk. We expect that the new templates will speed up transactions, reduce the cost of contract negotiation and reduce the costs of investment through greater clarity.



## Planning for the future

During the year, Network Rail has worked with passenger and freight train operators through the Planning Oversight Group (POG) on long-term planning for the industry, and to coordinate industry input to governments' development of output specifications for the next control period (CP5). We strongly support this work.

POG has sought to work with and draw upon established industry groups such as the national task force, safety policy group, the sustainable rail programme, and the technical strategy advisory group. We look forward to the publication in June of POG's emerging position on the longer term strategy for rail and the priorities for rail users and funders in CP5 as the industry sees them. We expect POG will continue to work to develop its thinking for CP5 and the publication of the Initial Strategic Business Plan in June 2011.

## Route Utilisation Strategies (RUS)

Several Route Utilisation Strategies were established in 2009-10: Merseyside, Network RUS - Electrification Strategy, Network RUS - Scenarios and Long Distance Forecasts, Kent, Sussex and Yorks & Humber. The East Midlands and Great Western RUSs were established in April 2010.



## Introduction

Asset reliability improved in 2009-10 despite the exceptionally severe winter. This has been a major contributor to the overall reduction in delays caused by Network Rail.

However, as we have continued to learn more about the state of Network Rail's asset management capabilities, including through its work to revise its asset policies and plans, we have concluded that it has more to do to achieve asset management excellence than we had previously believed. Key areas of weakness are continuing inability to optimise maintenance and renewals to achieve minimum whole-life costs, slow progress in addressing deficiencies in asset knowledge management and particular failings in the planning and delivery of sustainable structures management.

Network Rail's transformation programme delivers a fundamental reorganisation of the company's asset management functions. Responsibilities have been repackaged and a number of new roles established, the most important of which is the appointment of a director of asset management. The key positions in the new structure, with the exception of head of asset information, are now filled. This is welcome progress but we wish to understand better how it will support the asset management process and we are pressing Network Rail for clarification of this.

We will work with Network Rail in the coming months to establish and articulate a clear, challenging but deliverable trajectory towards best practice asset management by the company, meeting the priority requirements of the industry and its customers.

GY

## Asset planning

### Asset policies

In accepting the PR08 determination Network Rail said that it would revisit its key asset policies as part of finding a route to achieving the necessary efficiency improvements. We agreed this approach subject to Network Rail convincing us that the revised policies satisfied two basic tests:

- (i) robustness - is it reasonable to believe the policies would deliver the regulated CP4 outputs?; and
- (ii) sustainability - if demand on the network were to remain steady, would continuation of the policies beyond CP4 continue to deliver the outputs specified for 2013-14 indefinitely? This is a stronger test to ensure that, in managing within CP4 funding, Network Rail is making genuine efficiencies and is not deferring essential work at the cost of inefficiently higher expenditure in later control periods.

Network Rail found it hard to demonstrate that its policies are robust and sustainable and we had to press repeatedly for clear supporting rationales. However we have finally been convinced that all the policies except that for structures meet both tests. Network Rail has itself acknowledged that it cannot demonstrate sustainability for its structures policy. We are jointly commissioning the independent reporter to review this area in depth.

In the light of this experience our impression is that, at least prior to its latest reorganisation, Network Rail has not given this crucial area sufficient emphasis.

Y

## Asset information

In signing-off Network Rail's progress with improving asset information in 2007 we caveated this with reference to a number of requirements for further progress with its Asset Information Strategy (AIS). These have been tracked by the independent reporter AMCL through a series of audits. Although all of AMCL's recommendations have been accepted by Network Rail, some 46 are still to be closed out.

It is now five years since Network Rail's AIS was re-issued. The company recognises that its current systems have substantial deficiencies. Network Rail has proposed a two-phase improvement programme, phase 1 dealing mainly with updating and merging existing systems, and phase 2 replacing old IT with new. However the plans are still not available, and we are concerned by the slow pace of progress. If Network Rail is to meet the stewardship challenges ahead, including delivery of further efficiencies, its management of asset information will need significant and early improvement.

## Opex and capex planning

Key among 23 asset management competencies which AMCL benchmarks annually are planning for opex (maintenance) and capex (renewal). AMCL's last annual report, in early 2009, scored both areas well below best practice, and there has been little evidence of substantial progress over the last 12 months.

In those areas where Network Rail has completed risk-based maintenance surveys it has identified significant opportunities for increased efficiency. We are therefore encouraging the company to make more rapid progress towards finalising its current studies, and to extend the approach across all asset groups.

## Whole life costing

In our PR08 work we noted that Network Rail was unable to show that its plans for CP4 were the most efficient, minimum whole life cost solution for Britain's railways. Network Rail is still unable to do this; none of the new asset policies was based on clear whole life costing. A recent analysis by independent reporter Arup suggested that one key factor is Network Rail's poor understanding of its maintenance unit costs.

To make a credible submission to PR13 Network Rail must be able to set down and substantiate minimum whole-life cost policies for managing its assets, and to demonstrate the impact of different output requirements and constraints. This is standard practice in the utilities sector and is fundamental to delivering future efficiencies.

## Maintenance restructuring

Network Rail is continuing to discuss implementation of its maintenance restructuring proposals with the trades unions. It expects to implement changes from the autumn. We support the goal of introducing much greater efficiency into maintenance practices in ways that sustain and improve safety. We will monitor the implementation to ensure that safety is maintained throughout and beyond this process.

## Asset delivery

Network Rail published its updated asset policies and CP4 delivery plan on 31 March 2010. In accepting these as a basis for asset management delivery in CP4 we will also define the information we will require about asset condition and activity levels, to provide assurance that Network Rail is delivering to its revised plan.

## Asset condition and reliability

Overall, Network Rail has continued to improve the reliability of the infrastructure in 2009-10 with the number of incidents down 10.5% to 46,919 and associated delay minutes down 12.7% to 3.9 million compared to 2008-09.

## Track assets

A significant part of this improvement has again been driven by track assets where delays have reduced by 195,223 minutes (20%).

Incidents of gauge corner cracking have continued to rise in some parts of the network, but overall numbers are low and delay minutes caused have fallen by 47% when compared to last year. We believe that these improvements provide evidence of the effectiveness of the range of measures which Network Rail introduced last year. These include: early identification of problem sites, grinding regimes, use of premium rail steels and appropriate liaison with TOCs and vehicle manufacturers to modify vehicle wheel profiles.

We particularly commend Network Rail's continued work to reduce the number of temporary speed restrictions, which ended the year at 170, less than half the figure of four years ago. This has made a significant contribution to better train performance.

## Non-track assets

Reliability of non-track assets has seen measurable improvement compared to the previous year with delay minutes down by 225,172 minutes (8.0%), however, the improvements have not been consistent across the assets.

G

G

## Points failures

Last year we were critical of points reliability. Whilst this remains the largest single cause of infrastructure delay, there was a reduction of 88,818 minutes (11.8%) when compared with last year. The reliability of High Performance Switch System (HPSS) equipment has seen considerable attention and the results suggest that many of the causes of failure have been resolved. Points reliability per S&C unit has been improving, but severe winter weather has affected the results.

## Track circuit failures

After point failures, this is the next most significant category of train delay cause. This year saw a reduction of 80,879 minutes (11.5%) compared with the previous year.

This category includes axle counters which have been the cause of considerable concern on the West Coast main line. Whilst overall axle counter reliability is still not as good as anticipated, the number of occasions when it leads to major disruption has reduced. There are signs that Network Rail's sustained attention to identifying and resolving the technical problems, working closely with the manufacturer Thales, is making progress.

## Other factors

There are five categories where reliability got worse in 2009-10:

- cable faults - increased by 26,085 minutes;
- fires started on Network Rail infrastructure - increased by 15,353 minutes;
- OLE / third rail faults - increased by 6,227 minutes;

G

- changes of aspect - 'no fault found' - increased by 2,843 minutes;
- other signalling faults - increased by 2,775 minutes.

Whilst these are all disappointing they did not significantly undermine the overall improvement.

The most serious issue relates to cable faults. This includes disruption caused by cable theft, a problem the railway has faced for some years now. Delay minutes from this cause increased by 18.3% (26,085 minutes) in 2009-10. Network Rail is seeking to mitigate the problem through publicity campaigns, close co-operation with British Transport Police and innovative measures such as the use of chemicals to 'fingerprint' assets.

## Structures & earthworks

The examinations and assessments regime is a crucial part of Network Rail's management of structures. We have continued to monitor the rate of progress of bridge inspections and examinations and we believe the year end position to be satisfactory.

However we have had concerns about the quality of examinations, which has potential consequences for asset stewardship and safety. This led us to issue an improvement notice for South Eastern region in March. We believe Network Rail is learning the lessons from these failures and we shall continue to monitor progress jointly with them.

Network Rail has introduced a new KPI of 'structures subject to special examination'. At the year end this stood at 888, significantly less than the 1,458 forecast in the CP4 Delivery Plan (2009).

Earthworks failures remained at a low level with 45 recorded in the year. Temporary speed restrictions in relation to structures and earthworks condition also remained at a low level.

## Stations

Stations are the only assets in our CP4 determination for which we have set condition requirements in terms of the Station Stewardship Measure (SSM). Over CP4 as a whole Network Rail must maintain average station condition scores within each of the six station categories (which reflect the different sizes and passenger throughputs of stations) across the network, and to maintain average station condition in Scotland.

The first annual update of the station condition scores has now been received and shows that SSM is broadly unchanged from the levels reported in the 2008-09 annual return, and well ahead of the requirements set in our determination. However, the independent reporter Arup has carried out an audit of SSM and assessed confidence in the data as being low ('C4' compared to Network Rail's assessment of 'B2').

We are reviewing these issues with Arup and Network Rail and will report our conclusions in the next monitor.

## Renewals

Progress on Cambrian ERTMS has again been slower than planned, with further delays in commissioning and completion expected on 31 October 2010. We have called Network Rail to a joint meeting with DfT to explain how it will resolve the ongoing problems with this trial.

# Asset management

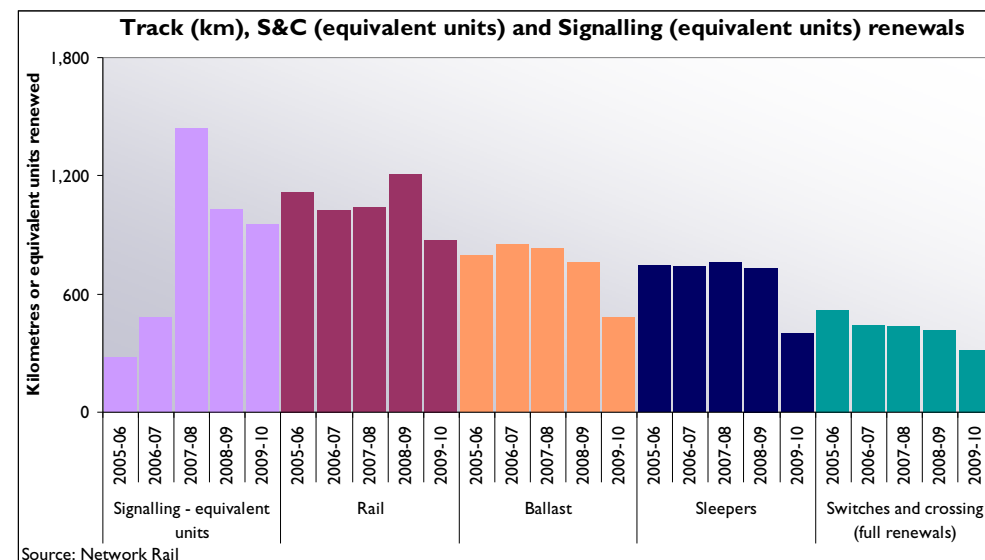
A consequence of this delay is that expert resources needed for the next phase of ERTMS will be tied up with the Cambrian ERTMS for longer than planned.

Upgrades to the radio electronic token block equipment used in Scotland have been carried out successfully, and appear to be improving the reliability of the signalling system and providing better quality voice communication between drivers and signallers. The equipment in Scotland is now likely to continue in use for many years to come, and maintaining this improved performance is essential.

We have not monitored Network Rail's other renewal activities in detail this year, as we awaited its revised asset policies which would establish whether its renewal plans were compliant with its obligations. Now that this is accepted, we will monitor renewal activity more closely to see that it is consistent with Network Rail's plans.

Renewal Activity	2005-06		2006-07		2007-08		2008-09		2009-10	
	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast*	Actual
Rail renewal - km	1,002	1,120	1,007	1,028	1,016	1,039	939	1,206	755	873
Sleeper renewal (all types) - km	733	744	782	738	698	763	687	735	496	402
Ballast renewal (all types) - km	752	798	986	850	851	837	804	763	553	481
Switches and crossings - units	507	520	407	442	473	436	438	419	326	319
Signalling - equivalent units	257	278	669	481	1,357	1,441	1,109	1,035	792	951

\* 2009-10 forecast - Network Rail Control Period 4 Delivery Plan update 2010



## Network Rail monitor

Quarter 4 of Year 1 of CP4, 10 January 2010 - 31 March 2010  
and annual assessment 2009-10

# Asset management

Infrastructure asset failure performance	Delay minutes					Incidents				
	2005-06	2006-07	2007-08	2008-09	2009-10	2005-06	2006-07	2007-08	2008-09	2009-10
<b>Track assets</b>	<b>1,517,031</b>	<b>1,286,328</b>	<b>1,138,119</b>	<b>958,866</b>	<b>763,643</b>	<b>9,171</b>	<b>9,972</b>	<b>8,664</b>	<b>7,886</b>	<b>6,810</b>
TSRs Due to Condition of Track	567,574	348,496	284,823	203,603	134,939	2,803	2,198	1,878	1,460	1,187
Track faults (including broken rails)	934,958	928,548	835,866	732,749	616,821	6,297	7,683	6,712	6,255	5,494
Gauge Corner Cracking	14,499	9,284	17,430	22,514	11,883	71	91	74	171	129
<b>Non-track assets</b>	<b>3,267,089</b>	<b>3,196,580</b>	<b>2,768,387</b>	<b>2,825,689</b>	<b>2,600,517</b>	<b>36,619</b>	<b>36,503</b>	<b>32,068</b>	<b>32,768</b>	<b>31,034</b>
Points failures	839,299	832,048	733,284	751,973	663,155	8,724	9,074	7,811	8,375	7,540
Level crossing failures	126,721	116,093	108,059	100,828	96,438	2,657	2,365	2,200	2,292	2,197
OLE/Third rail faults	242,176	337,668	214,463	237,637	243,864	1,497	1,705	1,355	1,478	1,263
Signal failures	395,152	346,695	292,047	312,880	246,230	8,145	7,370	6,545	6,700	6,202
Track Circuit failures	988,514	823,137	717,777	704,652	623,773	8,568	7,970	6,522	6,582	6,178
Signalling System & Power Supply failures	370,159	436,629	393,962	441,914	420,437	3,273	3,996	3,935	3,818	4,094
Other signal equipment failures	72,736	78,045	60,040	56,361	59,136	1,740	1,712	1,417	1,340	1,450
Telecoms failures	64,021	51,140	66,254	70,320	69,432	1,314	1,445	1,461	1,425	1,370
Cable faults (signalling & comms)	156,184	160,305	174,488	142,318	168,403	470	624	663	578	536
Change of Aspects-NFF	12,127	14,820	8,013	6,806	9,649	231	242	159	180	204
<b>Others</b>	<b>846,919</b>	<b>862,811</b>	<b>850,989</b>	<b>718,359</b>	<b>565,965</b>	<b>10,709</b>	<b>11,837</b>	<b>12,586</b>	<b>11,788</b>	<b>9,075</b>
Civil Engineering structures, earthworks & buildings	103,807	124,619	126,453	79,783	79,521	485	569	492	398	444
Other infrastructure	235,993	206,075	238,007	189,924	120,748	4,625	5,240	5,422	4,391	2,966
Track Patrols & related possessions	94,749	81,832	78,387	68,247	33,836	2,616	2,639	3,135	3,524	2,792
Mishap - infrastructure causes	124,587	160,431	160,153	191,126	155,296	1,075	1,416	1,629	1,905	1,515
Fires starting on Network Rail infrastructure	42,149	33,580	27,089	17,115	32,468	314	285	230	197	222
Bridge strikes	245,634	256,274	220,900	172,164	144,096	1,594	1,688	1,678	1,373	1,136
<b>Total</b>	<b>5,631,039</b>	<b>5,345,719</b>	<b>4,757,495</b>	<b>4,502,914</b>	<b>3,930,125</b>	<b>56,499</b>	<b>58,312</b>	<b>53,318</b>	<b>52,442</b>	<b>46,919</b>
<b>Track assets account for 19%, Non-track assets account for 66% and Other assets account for 14% of all infrastructure caused delays</b>										

## New technology

Over a year ago, in the light of persistent reliability problems with HPSS points systems and axle counters, we called on Network Rail to improve how it manages the introduction of new technology. We were concerned that Network Rail needed to put more effort into the early planning, testing and commissioning phases of its projects. We wrote to Network Rail to highlight these concerns as well as the need to fully understand failure modes and to improve training in operating and fault finding.

Network Rail revised its strategy which now includes a new approach for identifying and screening ideas, and a New Product Introduction Process (NPIP) to replace, and go wider than, its former product acceptance process. Network Rail is planning to introduce NPIP over the next six months. The key to the success of this programme is greater involvement with suppliers and emphasising the need to purchase reliability instead of solutions. We also expect this programme to be underpinned by effective training and support services, which are critical to achieving business as usual performance.

It is vital that Network Rail continues to exploit new technologies to improve efficiency, safety and quality and we are encouraged by the development in two particular areas: modular switch and crossings and new video inspection techniques.

## Modular signalling

During the year, we have monitored Network Rail's development of new designs for modular signalling and the trials on the Ely to Norwich and Shrewsbury to Crewe lines.

Y

We support this work on secondary lines since it should lead to more efficient manufacture and faster installation times, thereby reducing delivery time and cost.

# Expenditure and efficiency

## Overview

Having an accurate calculation of the improvement in Network Rail's efficiency is an important part of our assessment of the company's performance. This section contains an overview of Network Rail's expenditure in 2009-10 compared to our PR08 determination, the prior year (2008-09) and its budget and a discussion of Network Rail's efficiency in 2009-10. We will report on these issues in more detail in our annual efficiency and finance assessment in September.

The main expenditure issues are that:

- Network Rail spent £149m (17.7%) more on controllable opex than assumed in our determination; and
- it spent £649m (21.4%) less on renewals than our determination assumed, largely due to deferral of renewals work to later in CP4.

The main efficiency issues are:

- Network Rail's expenditure on controllable opex and maintenance combined was higher than our determination assumption (although lower than its own budget). We had assumed an efficiency improvement of 3.0% whereas actual efficiency deteriorated by 2.5%.
- It is not yet possible to judge the efficiency of renewals expenditure in 2009-10. However, the position may become clearer by the time we complete our annual efficiency assessment in September.

## Expenditure

The table below summarises Network Rail's controllable operating, maintenance and renewals expenditure in 2009-10.

2009-10 (Unaudited)	Actual (£m)	Determination (£m)	Actual compared to determination (£m)
Controllable opex	991	842	-149
Non-controllable opex	434	354	-80
Maintenance	1,071	1,111	40
Renewals	2,390	3,039	649
<b>Total</b>	<b>4,886</b>	<b>5,346</b>	<b>460</b>

Controllable opex was £991m. This is £149m (17.7%) higher than our determination and £130m (15.1%) higher than in 2008-09. These variances are largely because of a lower improvement in efficiency over the last three years compared to our determination assumption, higher utility costs, some one-off transformation programme costs and an increase in employment related costs, such as pensions.

It is also £13m (1.4%) higher than Network Rail's budget<sup>8</sup>. Network Rail has said this is largely as a result of higher employment related costs.

Non-controllable opex was £434m. This is £80m (22.6%) higher than our determination largely because of higher spend on traction electricity (£64m), which is compensated for by higher income, and higher British Transport Police costs (£15m). It is also £33m (8.2%) higher than in 2008-09 largely because of higher spend on traction

<sup>8</sup> Network Rail's 2009-10 budget is similar to the first year (2009-10) of its delivery plan.

electricity (£25m), which is compensated for by higher income, and £1m (0.2%) higher than Network Rail's budget.

Maintenance expenditure was £1,071m. This is £40m (3.6%) lower than our determination and £32m (2.9%) lower than in 2008-09. It is also £27m (2.5%) lower than Network Rail's budget. The variances are largely due to net efficiency savings.

Renewals expenditure was £2,390m. This is £649m (21.4%) lower than our determination and £756m (24.0%) lower than in 2008-09. It is also £529m (18.1%) lower than Network Rail's budget. The renewals expenditure includes spend on West Coast route modernisation (WCRM). This particularly affects the comparison to 2008-09 as Network Rail spent £89m on WCRM in 2009-10 and £478m in 2008-09. Excluding WCRM, Network Rail's renewals expenditure was £367m (13.8%) lower than in 2008-09. The renewals variances are largely due to deferrals of expenditure to later in CP4.

## Efficiency

Having an accurate calculation of the change in Network Rail's efficiency is an important part of our assessment of Network Rail's performance.

Network Rail changed the way it calculates its efficiency for 2009-10 by introducing its cost efficiency measure (CEM). We do not consider that the CEM actually measures efficiency, but simply measures how Network Rail's expenditure in 2009-10 compares to

its own adjusted 2008-09 baseline expenditure figure<sup>9</sup>. We and the reporters have a number of concerns about the CEM<sup>10</sup>.

Network Rail has established a five year delivery plan to achieve the efficiencies assumed in our determination for CP4, and in doing so has established a phasing of expenditure which is different from our determination. In particular, Network Rail has budgeted for higher operations/support functions expenditure in 2009-10 but higher efficiency savings over the remainder of CP4 than we assumed in our determination. Network Rail has the flexibility to re-phase expenditure in this way if it considers that this is the best way to meet delivery requirements.

Network Rail's expenditure on controllable opex and maintenance combined in 2009-10 was higher than our determination assumption. We had assumed an efficiency improvement of 3.0% in 2009-10 whereas actual efficiency deteriorated by 2.5%. This means that Network Rail's challenge in the remainder of CP4 will be much harder than we assumed in the determination, although it has achieved its budget for 2009-10.

For renewals, Network Rail is reporting it has made efficiency improvements of 6.6% in 2009-10. However, we consider that it is not yet possible to judge the efficiency of renewals expenditure in 2009-10 given, in particular, uncertainties about whether the

<sup>9</sup> Network Rail no longer reports on the financial efficiency index (FEI), which it used in CP3 (and which was part of its management incentive plan).

<sup>10</sup> For example: the CEM does not compare to the pre-efficient PR08 determination; it does not include a visible or auditable link between efficiency and the sustainable management of assets; it has relatively low coverage of the cost base and there is little comparative data.



# Expenditure and efficiency

reductions in the volumes of activity were due to efficiency or deferral<sup>11</sup>.

These uncertainties should be easier to resolve as we have now completed our review of Network Rail's revised asset policies. We therefore expect that the position may become clearer by the time we complete our annual efficiency assessment in September.

---

<sup>11</sup> Both volume and unit cost savings can count as efficiency improvements, as long as a volume reduction is not merely a deferral of spend and it has not led to an adverse effect on the serviceability and sustainability of the network.

## Customer service

Responding well to its immediate customers (the passenger and freight train operators) is as important to Network Rail's long term success as delivering 'hard' regulated outputs. We welcome inclusion of customer and passenger satisfaction in its management incentive arrangements and the inclusion of a *service culture* stream in the company's transformation programme.

Network Rail's survey of passenger and freight train operator satisfaction showed a welcome improvement driven by better passenger train operator responses; average satisfaction is now 3.33 on a scale where 3 is neutral and 5 very satisfied. Freight operators remain generally less satisfied, the score only slightly up on the previous year. Operators scored Network Rail most highly for the way it manages relationships including valuing the relationship, honesty, timeliness, being easy to work with and business understanding. As last year they were least satisfied with involvement in decisions and considered Network Rail to be poorly integrated and inflexible. Network Rail is rightly looking for substantial further improvements in all scores as the benefits of its transformation programme feed through.

Network Rail also included passenger satisfaction in its management incentive arrangements for the first time. This uses satisfaction as measured by Passenger Focus surveys; 2009 scores were 1-2% up on the previous year which is encouraging. Of course overall satisfaction is influenced by many factors outside Network Rail's control. One area where it does have a significant impact is punctuality and reliability, where passenger satisfaction increased from 81% to 83% (leaving 17% of passengers neutral or dissatisfied).

The company responded well to crises at times during the year. There was much good work to keep services running during



The monitor focuses on issues of Network Rail's delivery for which it is accountable under its network licence. We have used colour flags to show at a glance our current level of concern with an issue:



Network Rail delivery is satisfactory or good.



Network Rail delivery is currently unsatisfactory and/or we have some concerns about future delivery. We have raised the issue with Network Rail at a working level.



The issue is subject to special scrutiny, with intensive investigation and enhanced monitoring. We may have discussed potential licence concerns with Network Rail Directors.



We have major concerns about current and/or future delivery. We are considering, or have already decided to take formal enforcement action.

We welcome feedback on the content and format of this publication. Please address your comments or queries as follows:

Customer service and general comments:

Rob Plaskitt on 020 7282 2072 or [Rob.Plaskitt@orr.gsi.gov.uk](mailto:Rob.Plaskitt@orr.gsi.gov.uk)

Train service performance:

Paul Hadley on 020 7282 2039 or [Paul.Hadley@orr.gsi.gov.uk](mailto:Paul.Hadley@orr.gsi.gov.uk)

Developing the network:

Graham Richards on 020 7282 3943 or [Graham.Richards@orr.gsi.gov.uk](mailto:Graham.Richards@orr.gsi.gov.uk)

Asset management:

Jim Bostock on 020 7282 2113 or [Jim.Bostock@orr.gsi.gov.uk](mailto:Jim.Bostock@orr.gsi.gov.uk)

Statistics in this publication:

Matt Wikeley on 020 7282 0113 or [Matt.Wikeley@orr.gsi.gov.uk](mailto:Matt.Wikeley@orr.gsi.gov.uk)

exceptionally severe winter weather. More recently the company postponed track works so that extra trains could run for passengers unable to fly during the disruption caused by the volcanic ash cloud. Network Rail is also working well with funders in responding to an unexpected degree of post-HLOS change to requirements for enhancement projects. And it has engaged well with its industry partners on long-term planning issues through the new 'planning ahead' initiative.

Timetable development is a core role for Network Rail. While it handles most routine changes well we have concerns about its ability to take a strategic view, based most recently on the time it has taken the industry to agree a new East Coast timetable. At the end of the year, introduction of Network Rail's new integrated train planning system caused significant timetabling problems for train operators and their customers. We are investigating the circumstances which led to these problems and the company's plans to ensure that similar problems do not arise again.

Passenger research shows that the industry is poor at providing useful information when services are disrupted. The industry recognises the urgent need for improvement, highlighted particularly during last winter's severe weather. Network Rail is playing a major part in the industry's plans to make significant improvement in this area which we are monitoring closely.

During the year we pressed Network Rail to resolve difficulties reported by stakeholders in accessing accurate gauge information, for example to enable the design of new trains. It developed a comprehensive response and a new strategy for handling gauge information which we endorsed, but we have asked for a clear statement of expected turn-around times for typical information requests, with subsequent monitoring of service levels. We now



require Network Rail to apply a similar approach to other areas of capability where similar problems remain, starting with power supply capability.

## Train service performance

At the end of period 9 Network Rail appeared to be on track to achieve the end of year regulatory requirements for train service performance in Scotland but exceptionally severe weather over several periods resulted in failure to deliver either the PPM requirements or the maximum level of delay to passenger services.

We called on Network Rail to account for this. We have now accepted<sup>12</sup> its evidence that the severity of conditions at times during the winter was genuinely exceptional, that it could not reasonably have been expected to meet all minimum performance requirements taking this into account, and that but for this factor it may well have delivered all the performance requirements.

Network Rail performance on the West Coast main line has been a serious concern throughout this year. After initially appearing insufficiently responsive to the needs of its customers for rapid improvements, and facing strong regulatory intervention from ORR and DfT, Network Rail has worked more closely with the operators. Special rapid response teams were established to mitigate the impact of asset failures while longer-term solutions were sought. Problems included continuing unreliability of axle counters, some types of new pointwork and power supplies. After an encouraging autumn, performance fell back but recent performance has been more encouraging and there are indications that the main asset reliability issues are beginning to come under



<sup>12</sup> See: [www.rail-reg.gov.uk/upload/pdf/MissedRegulatoryPerformanceReqs200910.pdf](http://www.rail-reg.gov.uk/upload/pdf/MissedRegulatoryPerformanceReqs200910.pdf)

control. We will continue to monitor this route closely until we are satisfied that sustainable good performance has been achieved.

Towards the end of the year performance on the East Coast main line began to cause concern. Both First Capital Connect and East Coast Trains asked us to intervene to apply pressure for early improvement. We held a meeting with Network Rail and three operators using the route and were pleased to see evidence of increased cooperation in understanding the problems and agreeing credible plans to deliver early improvements on all sides. We will continue to monitor progress.

We placed a new requirement on Network Rail in CP4 to reduce disruption to passengers across the network from planned engineering work by 37% by March 2014 and to ensure that disruption to freight services should get no worse. Disruption fell during the year and at the end of 2009-10 the disruption indices were already better than the regulatory requirements for 2013-14. Network Rail has introduced some less disruptive working methods on the network but to some extent this very good result also reflects the deferral of engineering work and a relatively low level of enhancement activity. Network Rail therefore still faces a challenge to deliver its obligations in the later years of CP4.

Although there are no specific network availability targets for Scotland, it is expected that disruption will fall in line with the rest of the network as new approaches are implemented on a system-wide basis. Disruption to First ScotRail services in 2009-10 was well down on the last two years, largely because there was no requirement for major blockades for re-signalling work as seen in Glasgow around New Year 2008 and 2009.

Y

G

## Developing the network

Although overall Network Rail is slightly behind its internal schedule for the enhancements programme, taken as a whole we believe it has made reasonable progress. In December the Glasgow to Kilmarnock project was finished on time and additional services were introduced.

2009-10 was a significant year for the GSM-R project. Network Rail faced technical challenges in the Strathclyde pilot scheme but GSM-R is now in operation across Strathclyde. It was successfully introduced onto Virgin Trains south of Crewe, rapidly producing evidence of reduced train delays.

There have been challenges on the Airdrie-Bathgate project. With our encouragement, Network Rail acted to improve the probability of on time delivery and good progress was being made until Christmas 2009. Subsequent prolonged severe weather caused delay and potential risks to delivery. Network Rail and its contractors have, though, agreed a revised integrated plan which is forecast to deliver to meet the start of train services on 12 December 2010. We are continuing to monitor this closely.

Following the cancellation of the branch line element of the Glasgow Airport Rail Link by the Scottish Government, Network Rail updated its delivery plan with a revised scheme for the Paisley corridor. Good progress was made throughout the year on the enabling works and Glasgow Central works and Network Rail is on course to deliver the revised scheme on time.

Network Rail has been discussing the scope of works and delivery date with Transport Scotland for the connection between the new Borders Railway and the national network. Once this is agreed the delivery plan will be updated to reflect the company's obligations.

G

Y

G

G

The Glasgow-Kilmarnock project was delivered on schedule in December 2009 and Ayrshire Inverclyde infrastructure works for introducing Class 380 trains progressed throughout the year.



We are currently discussing costs and monitoring arrangements for the Edinburgh to Glasgow Improvement Project with Transport Scotland and Network Rail. The Gogar station design and Haymarket tunnels development is advancing. More detail on the full programme of enhancement projects is included in the body of this Monitor.



Network Rail has worked well with passenger and freight train operators through the planning oversight group on long-term planning for the industry, and to coordinate industry input to governments' development of output specifications for the next control period. We strongly support this work and look forward to publication in June of the group's position on longer term strategy and the priorities for rail users and funders in CP5.



## Asset management

Asset reliability improved in 2009-10 despite the exceptionally severe winter. This has been a major contributor to the overall reduction in delays caused by Network Rail.



However, as we have continued to learn more about the state of Network Rail's asset management capabilities, including through its work to revise its asset policies and plans, we have concluded that it has more to do to achieve asset management excellence than we had previously believed. Key areas of weakness are continuing inability to optimise maintenance and renewals to achieve minimum whole-life costs, slow progress in addressing deficiencies in asset knowledge management and particular failings in the planning and delivery of sustainable structures management. We will work with



Network Rail in the coming months to establish and articulate a clear, challenging but deliverable trajectory towards best practice asset management by the company, meeting the priority requirements of the industry and its customers.

Network Rail found it hard to demonstrate that its revised asset policies are robust and sustainable and we had to press repeatedly for clear supporting rationales. However we have finally been convinced that all the policies except that for structures meet both tests. Network Rail has itself acknowledged that it cannot demonstrate sustainability for its structures policy. We are jointly commissioning the independent reporter to review this area in depth.



We have had concerns about the quality of structures examinations, which has potential consequences for asset stewardship and safety. This led us to issue an improvement notice for an England region in March. We believe Network Rail is learning the lessons from these failures and we shall continue to monitor progress jointly with them.

We particularly commend Network Rail's continued work to reduce the number of temporary speed restrictions, which ended the year at 22, around a third less than four years ago. This has made a significant contribution to better train performance. Last year we were critical of points reliability. Whilst this remains the largest single cause of infrastructure delay, this was down 11.8% compared with last year. The High Performance Switch System equipment has seen considerable attention and the results suggest that many of the causes of failure have been resolved. Whilst overall axle counter reliability is still not as good as anticipated, the number of occasions when it leads to major disruption is falling. There are signs that Network Rail's sustained attention to identifying and



resolving the technical problems, working closely with the manufacturer Thales, is making progress.

## Expenditure

Controllable opex was £96m. This is £20m (26.3%) higher than our determination and £13m (15.7%) higher than in 2008-09. It is also £2m (2.1%) higher than Network Rail's budget. The reasons for these variances are largely the same as described above for Great Britain.

Maintenance costs were £92m. This is £14m (15.2%) lower than our determination and £5m (5.2%) lower than in 2008-09. It is also the same as Network Rail's budget. The variances are largely due to efficiency savings as described above for Great Britain.

Renewals expenditure was £226m. This is £111m (32.9%) lower than our determination and £65m (22.3%) lower than in 2008-09. It is also £49m (17.8%) lower than Network Rail's budget. The renewals variances are largely due to deferrals of expenditure to later in CP4 as described above for Great Britain.

## Efficiency

Against the determination baseline, Network Rail's efficiency in Scotland on controllable opex and maintenance improved by 0.1% in 2009-10. This compares to a deterioration of 2.7% in England & Wales. Network Rail has not yet adequately explained this difference, so we will report further on this in our annual efficiency assessment in September.

Y

# Key statistics

## Great Britain / England and Wales

	2008-09 P13	P1	P2	P3	P4	P5	P6	2009-10 P7	P8	P9	P10	P11	P12	P13	End of 2009-10	Regulatory targets	
																End of 2009-10	End of CP4
<b>Network availability</b>															<b>MAA</b>		
Possession Disruption Index (PDI-P)	0.88	0.40	0.89	0.31	0.35	0.36	0.48	0.65	0.79	0.49	0.84	0.78	0.96	No Data	0.63	1.02	0.63
Freight Disruption Index (PDI-F)	1.10	0.85	0.83	0.88	1.10	1.18	0.98	0.61	0.68	0.68	0.81	0.59	0.61	0.81	0.82	1.00	1.00
<b>Train performance</b>															<b>MAA</b>		
PPM (including Scotland)																	
Total PPM	92.7%	93.5%	93.5%	93.1%	92.5%	94.0%	93.6%	92.8%	90.2%	89.4%	79.8%	89.5%	91.8%	93.5%	91.4%	N/A	N/A
Long Distance	90.3%	89.6%	91.2%	88.9%	89.5%	91.3%	91.5%	92.6%	88.8%	86.8%	74.7%	87.6%	89.8%	91.3%	88.8%	88.6%	92.0%
London and South East	92.7%	93.8%	93.6%	94.0%	92.5%	94.3%	93.8%	93.0%	90.8%	88.9%	79.0%	88.1%	91.3%	93.6%	91.4%	91.5%	93.0%
Regional (excl. Scotland)	93.5%	94.0%	94.1%	92.7%	93.4%	93.8%	93.6%	93.0%	89.8%	90.9%	85.5%	92.4%	93.6%	94.2%	92.5%	90.5%	92.0%
CaSL (England and Wales Only)															<b>MAA</b>		
Long Distance	3.8%	4.3%	3.0%	4.7%	3.9%	3.6%	3.7%	2.5%	4.1%	5.7%	13.0%	4.5%	4.3%	3.8%	4.6%	4.9%	3.9%
London and South East	1.8%	1.7%	1.8%	1.7%	2.2%	1.5%	1.7%	1.8%	2.1%	2.7%	8.6%	3.7%	2.6%	1.6%	2.5%	2.3%	2.0%
Regional	1.9%	1.5%	1.6%	2.2%	1.9%	1.8%	2.0%	1.8%	2.3%	2.3%	4.9%	1.9%	1.7%	1.8%	2.1%	2.6%	2.3%
Delay Minutes (actual delay minutes)															<b>MAT</b>		
Passenger (1000's of minutes)	464.0	470.9	390.4	426.8	446.7	340.3	385.9	393.2	545.1	586.1	868.7	534.2	457.5	348.3	6,194	6,270.0	4,980.0
Freight (Normalised by per 100 train km)	3.63	3.56	3.30	3.76	3.39	3.06	3.12	3.06	3.93	4.40	8.39	4.65	4.88	3.70	3.98	3.68	2.94
<b>Infrastructure</b>															<b>MAA</b>		
Number of asset failures	3,859	3,848	3,333	3,522	3,492	3,146	3,145	3,052	3,229	3,331	3,135	3,216	3,159	2,809	3,263	N/A	N/A

GB data collected annually			Finance	2007-08	2008-09	2009-10	Station Stewardship	Regulatory target	2008-09	2009-10
Customer satisfaction	2008-09	2009-10	Adjusted Interest Cover Ratio	New measure		1.8	Category A	2.48	2.33	2.28
TOC (mean satisfaction score)	3.09	3.35	Expenditure (£m)	5,930	6,934	5,644	Category B	2.60	2.42	2.40
FOC (mean satisfaction score)	2.93	2.95	Operating costs	1,175	1,313	991	Category C	2.65	2.49	2.47
			Maintenance	1,118	1,104	1,071	Category D	2.69	2.53	2.53
			Renewals	2,894	3,139	2,390	Category E	2.74	2.54	2.52
			Enhancements	743	1,378	1,192	Category F	2.71	2.54	2.54

## Scotland

	2008-09 P13	P1	P2	P3	P4	P5	P6	2009-10 P7	P8	P9	P10	P11	P12	P13	End of 2009-10	Regulatory targets	
																End of 2009-10	End of CP4
<b>Network availability</b>															<b>MAA</b>		
Possession Disruption Index (PDI-P)	0.50	0.00	0.20	0.19	0.49	0.21	0.42	1.04	1.01	0.12	0.00	0.43	0.49	No Data	0.28	N/A	N/A
<b>Train performance</b>															<b>MAA</b>		
PPM	92.5%	93.7%	92.5%	92.5%	92.0%	94.8%	93.7%	91.6%	89.6%	89.5%	71.9%	90.0%	91.0%	92.5%	90.6%	90.9%	92.0%
Delay minutes (actual delay minutes)															<b>MAT</b>		
Passenger (1000's of minutes)	35.9	32.8	32.5	30.7	36.6	25.6	29.2	34.6	44.2	52.7	103.3	42.4	46.7	36.6	547.9	436	382
CaSL															<b>MAA</b>		
First ScotRail	1.6%	1.3%	2.0%	2.0%	1.9%	1.0%	1.3%	1.4%	1.6%	2.1%	11.0%	2.3%	2.2%	2.0%	2.4%	N/A	N/A
<b>Infrastructure</b>															<b>MAA</b>		
Number of asset failures (NR Scotland Route)	450	407	360	387	354	317	300	348	371	329	347	332	375	275	346	N/A	N/A

Scotland data collected annually			Finance	2007-08	2008-09	2009-10	Station Stewardship		
Customer satisfaction	2008-09	2009-10	Expenditure (£m)	505	608	589	All Stations		
TOC (mean satisfaction score)	3.00	2.78	Operating costs	103	112	96	Regulatory target	2008-09	2009-10
			Maintenance	102	98	92	2.39	2.23	2.24
			Renewals	276	290	226			
			Enhancements	24	108	175			

- In this monitor, Q4 refers to periods 11-13, 10 January - 31 March 2010
- Historical delay minutes maybe refreshed due to disputes resolution process
- No data received for PDI-P, P13 as the measure lags by one period
- MAA is "Moving Annual Average"
- MAT is "Moving Annual Total"
- SSM (Station Stewardship Measure) is a new regulated output for CP4
- Customer Satisfaction is measured on a 5-point scale; 1 being most negative, 5 being the most positive.