Network Rail monitor

Quarter 3 of Year 2 of CP4, 17 October 2010 - 8 January 2011

OFFICE OF **RAIL REGULATION**

Great Britain summary

This monitor gives our assessment of Network Rail's performance up to the third quarter of 2010-11, which ended on 8 January 2011.

Customer service

Passengers and freight customers suffered serious **service disruption** during the severe weather. Exceptional efforts were made across the railway to keep trains running, sometimes in the most hostile conditions, and great credit is due. But where there are lessons to learn this must happen quickly. **[Y]**

The quality of **information provided** was variable. There were some improvements, notably where 'contingency' timetables were introduced early, but much information was again very poor. **[Y]**

Network Rail has a key role and has been managing initiatives including special training for staff and revised short-term planning arrangements to help operators introduce and communicate contingency timetables.

We commissioned the independent reporter Arup to review the industry's compliance with its new code of practice. The first backchecks on disruption in December show that the three operators studied have comprehensive policy documents but are at different stages in rolling these out. Network Rail is supporting its customers but there are important issues to be addressed, such as how timetable changes are agreed and how Network Rail ensures that the resulting service plans are compatible across the network. Arup will undertake further case studies over the rest of the winter; we will publish the final conclusions on our website.

We wrote to the National Task Force emphasising the importance of its role in this area. We welcome its decision to take direct ownership of improvement plans in 2011 and we are monitoring progress.

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:

[G] Network Rail delivery is satisfactory or good.

[Y] Network Rail delivery is currently unsatisfactory and/or we have some concerns about future delivery. We have raised the issue with Network Rail.

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

[R] 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:

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Great Britain summary

The last monitor highlighted preparations by Network Rail and many other organisations to minimise disruption from major **engineering work around Reading** over Christmas. Complex work was completed successfully and rail services restored as planned. Feedback from passengers has been particularly positive. This is a good example of the industry working together well in the interest of rail users. **G**

Network Rail has finally resolved all discrepancies between actual and published **network capability** (the subject of enforcement action in 2006). We now require it to certify each year in its annual return that it is compliant with its obligation to maintain capability as published. **G**

We have called for Network Rail to establish what information its stakeholders need about **power supply capability** and to make any necessary improvements. An industry workshop in January agreed key information requirements; a follow up will be held in April.

We are not satisfied with Network Rail's **management of losses** in electric traction current systems. Train operators welcomed a cross industry meeting to review the feasibility of efficiency improvements. **Y** Network Rail also has to **estimate transmission losses** to support those operators who opt-in to on train metering. We have asked it to show how it will ensure that these estimates do not transfer undue financial risk to non-metered operators. **Y**

Results from Network Rail's annual survey of its customers (train operators) show that, overall, customer satisfaction was down by 0.17 to 3.15 (on a scale of 1 to 5), although freight operator satisfaction **Y** increased by 0.16 to 3.11. Factors influencing this seem to be the ITPS problems, for which we found Network Rail in breach of its licence, and poor train performance. Network Rail is now discussing the results with its customers; we will report further in the next monitor.

Train service performance

Performance was seriously affected by the **severe weather**, despite great efforts by many people which kept services running. The timing and severity of the conditions caused difficulties for all transport and many railways in western Europe experienced disruption. Some lessons from previous severe weather had been learned, but there will be more and this must happen quickly; any practical steps which can improve the way such conditions are handled in the future must be taken now. We therefore welcome the action by Network Rail and the NTF to commission independent reviews of both autumn and winter performance, and we will expect to see these quickly and effectively followed up.

Network Rail will fail to meet most of the **regulatory requirements** we set in PR08 for train performance in 2010-11. We treat this as **YR** evidence of a possible licence breach. We have written to the company stressing that it must focus on delivering the best possible performance for the rest of the year. We said that we will then ask whether it can demonstrate clearly that it has taken all reasonably practicable steps in accordance with best practice to achieve the required performance over the year. We will hold a substantial review of this matter with Network Rail during March, but we will await the full year results before taking a final decision on licence compliance.

We remain particularly concerned at the performance of **East Coast** services. Performance has not yet recovered to the encouraging levels **YR** reached briefly in early autumn. Network Rail is implementing a programme to deal with non-track asset failures, but needs to do more to restore performance in the very short term.

First Great Western performance has declined since mid-2010, a key factor being an increase in Network Rail asset failures. We are **Y** meeting Network Rail and FGW shortly.

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Great Britain summary

Southern Railway has asked for our assistance in connection with increasing levels of Network Rail delay. As well as reviewing an updated short-term recovery plan we will ask the independent reporter to advise on underlying asset performance issues affecting the route, including the robustness of power supply systems. **Y**

We have also recently been contacted by **Southeastern, First Capital Connect** and **National Express East Anglia** about poor performance affecting their services. **Y**

Delay due to **operational planning errors** is running at around twice the expected level and is contributing to the overall excessive levels of Network Rail delay. This may be due to a shortage of experienced staff in the train planning unit since its move. We visited the unit and saw that Network Rail is training additional staff and planning a further ITPS upgrade to reduce the scope for human error. **Y**

While **disruption from planned engineering work** has been falling much faster than the regulatory requirement, we have been pressing for a robust plan setting out how Network Rail will meet the PR08 requirements over the whole control period. A newly developed forecasting tool shows that both indices will rise as the volume of work on the network increases, and that without further steps to reduce the impact of possessions the requirements would not be met in the latter part of CP4. The implementation plan will need to set out how Network Rail plans to deliver these requirements. **G**

Developing the network

This quarter saw **good progress on projects** including the Ayrshire Inverclyde platform extensions and a track-switch at Blackfriars as part of the Thameslink Programme. The new Airdrie to Bathgate link was opened to services on 12 December as planned. **G**

After good preparation for the extensive programme of **engineering work over the holiday period**, Network Rail completed most work on time including a key stage of the North London Line upgrade. There was a small number of overruns, some of which had been foreseen as preparations had been disrupted by the bad weather, but train operators agreed that the work should go ahead rather than being rescheduled for later in the year. Some work was deferred as a result of the freezing conditions and we are investigating an incident at one site (Clapham) where a crane worker was seriously injured. **G**

However we have become concerned in recent months at a rising trend in **possession overruns**. We have called on Network Rail to explain what is causing this and what steps it is taking to reverse it. **Y**

Decisions are still awaited about **IEP, further electrification and the additional rolling stock** to be procured in CP4. This affects a number of projects. Some, such as the **Northern Urban Centres**, will be held up by this but Network Rail should continue to develop others according to its commitments set out in its delivery plan.

Delay, mainly due to factors outside Network Rail's control, means the company does not expect to complete work at **Waterloo** to allow 10 car trains until March 2014. We have told it to consult DfT and SWT on whether this date is compatible with rolling stock delivery plans. **Y**

A review by the independent reporter of the **Access for All** programme was largely positive on efficiency but highlighted that the rate of station completion remains a concern. We are putting in place enhanced monitoring to assess Network Rail's overall compliance with its obligations. **G**

We have concerns about delivery of the **National Stations Improvement Programme (NSIP)**. We have asked the independent reporter to review governance and whether the programme is likely to deliver on time. **Y**

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Great Britain summary

The Strathclyde **GSM-R** trial is substantially complete. The system is also in operation on the west coast main line and in February it was introduced for East Coast trains on the main line south of Grantham. The next phase to go live will be on Stansted services in May.

G

Commissioning of the next phase of **ERTMS** on the Cambrian route has been delayed again to late March. We have agreed with Network Rail and DfT to commission a 'lessons learned' review to draw out all lessons, technical and commercial, relevant to planning the national implementation of ERTMS.

Y

Following work by the independent reporters to investigate barriers to **investment by train operators at stations** and Network Rail's initiatives to reduce **obstacles to third party investors**, we asked Network Rail to provide more data on its charges for asset protection, which it has done. We welcome its work to benchmark its costs to provide greater understanding of its charges. We have also asked Network Rail for information on the fees it charges to third party projects to cover risks; once we have a larger sample we will re-assess whether these are set at an appropriate level. We will continue to investigate any complaints made to us by investors.

G

We asked the independent reporter to review progress on phase 1 of the **Evergreen 3** project; this identified significant risks to timescales. Network Rail has agreed to take over management of the project from Chiltern Railways and the planned introduction of new services has been postponed to September.

Key enablers: safety maturity and asset management

In January the ORR and Network Rail boards met and agreed trajectories for Network Rail's improvement in two key enablers of better safety, performance and efficiency: *safety maturity*[1] and *asset management capability*. The importance of these is reflected in ORR's corporate strategy objectives.

Drawing on the independent reporter AMCL's spring 2010 Asset Management Roadmap, Network Rail has drawn up a plan to develop its asset management capability to best practice levels. This sets out a work programme and deliverables, with trajectories of projected progress. Key commitments include a costed plan for substantial improvements to asset management IT, plans to base all asset policies on analyses of whole life cost, performance, capacity and operational flexibility, and greater use of risk-based inspection and maintenance policies. Network Rail will publish its full response to AMCL's Roadmap on its website. We will monitor progress.

G

Asset management

A report by independent reporter Arup on Network Rail's **civil engineering structures management**, commissioned because of our serious concerns about the area, highlights weaknesses including the absence of formal lifecycle planning, shortfalls in asset knowledge and IT functionality. Network Rail is working with Arup on an improvement plan to address these weaknesses.

Y

Network Rail has commitments to maintain average **station and depot conditions**. The independent reporter has identified bias in the station condition measure; condition may actually be better than Network Rail has been reporting. This may require us to rebase the company's commitments. The depot condition audits found that only two out of five sites had sufficient data readily capable of audit; we are investigating whether this unsatisfactory position is typical.

Y

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[1] See our website for more details http://www.rail-reg.gov.uk/server/show/nav.1098

Great Britain summary

Network Rail has presented its ongoing work to improve the accuracy of its **maintenance and capital unit costs** (MUCs and CAFs). Good progress is being made with CAFs, but progress is slower with MUCs. We require significant further progress in time for Network Rail to prepare its SBP for CP5. **[Y]**

Network Rail has delivered 11% less **plain line track renewal** than planned so far this year, due to delays commissioning new high output plant. It expects to recover the shortfall next financial year, and has reaffirmed that it will deliver the full planned volume across CP4 as a whole. A shortfall on switch and crossing renewal should be recovered by the year end. Forecast delivery of conventional signalling renewal is below the plan figure due to delays in commissioning at Newport. **[G]**

Since 2009 we have been pressing Network Rail to improve its management of the **introduction of new technology**, citing poor planning and implementation of new 'high performance' points and axle counters. In response the company has developed a 'New Product Introduction Process' to identify promising ideas, develop them quickly and to assess and manage roll-out risks. We have reviewed pilot projects being processed using the new approach and we are satisfied that it is dealing with our concerns. In February the company also launched a supplier innovation and suggestion scheme, inviting proposals via a dedicated innovation portal. **[G]**

Delays caused by track assets in the year to date are 3.5% higher than last year; we called on Network Rail to analyse and report the causes. The rise is in delay due to track faults and broken rails (up 9%). Difficult autumn and winter conditions will have increased the risk of broken rails, so this rise may be temporary. The incidence of broken rails remains well below CP3 levels and those of comparable European networks. Temporary speed restrictions are reducing across most of the network. Track geometry measures are now generally **[Y]**

improving again and Network Rail is also introducing new management practices. At this stage we accept the company's assurance that these will lead to improvement in delays for the network as a whole within months.

Despite a downward trend in **non-track asset incidents** delay minutes are increasing due to a rise in delay per incident (DPI), the cause of which is not yet understood. We have asked the company to identify the root causes and develop remedial plans. Delays from **signalling systems & power supplies** are 14% worse, and in this case the number of incidents is itself also rising. Network Rail needs to identify and tackle the reasons for this. The company is in the middle of its extensive roll-out of **remote condition monitoring**, which should improve non-track asset performance by enabling much more 'predict and prevent' maintenance. We have asked the company to monitor and report on the costs and benefits of this programme. **[Y]**

Customer service

Services during the winter

Passengers and freight customers suffered serious disruption to train services during the severe weather in quarter three. Network Rail's immediate priority must be to return service reliability to planned levels.

Y

Exceptional efforts were made by people right across the railway to keep services running, sometimes in the most hostile conditions, and great credit is due for this. But where there are lessons to be learned this must happen quickly. Network Rail, working with the cross-industry National Task Force (NTF), is reviewing winter performance thoroughly to identify lessons and opportunities to improve future handling of such conditions; we will look to see these acted on.

Information for passengers during disruption

The quality of information provided to rail users during this disruption was variable. There were some improvements compared with the previous winter, notably where decisions were made in good time to operate 'contingency' timetables. But in places information was again very poor, which is disappointing given the work done during 2010. Passengers need accurate, consistent and timely information and all parties must plan more thoroughly and implement more consistently so that this is provided. We have been monitoring progress and attending the industry steering group; we will continue to watch this closely and press for effective action to address outstanding issues.

Y

Network Rail has a key role to play and has been programme managing initiatives to improve information provision including special training for control and engineering staff and revised short-term planning arrangements to help operators introduce and communicate contingency timetables.

Working through the NTF we commissioned the independent reporter Arup to review the industry's compliance with its new code of practice. Findings from the first three backchecks on disruption affecting services in December[2] were presented to NTF at its January meeting.

The results are mixed. The operators sampled have comprehensive policy documents but are at different stages in rolling these out. There is evidence that Network Rail is giving full support to its customers at whatever stage in the roll out of initiatives the operators have reached. However there are important issues still to be addressed, such as how and when late timetable changes are agreed and uploaded into information systems, and how Network Rail ensures that the resulting service plans are compatible across the network.

In January we wrote to the chair of the NTF[3] emphasising how seriously we take this issue and the importance of its role in coordinating the industry's work in this area. We welcome its decision to take direct ownership of a further extensive improvement plan in 2011. A key workstream will deliver improvements to Network Rail's train planning systems. We are monitoring progress.

Arup will undertake further case studies over the rest of the winter. We will publish the final conclusions on our website.

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[2]   The study covered East Coast, Southern Railway and First Transpennine train companies. Arup's report is available on our website at http://www.rail-reg.gov.uk/upload/pdf/pidd-interim-report-feb11.pdf

[3]   A copy of our letter to NTF is available on our website at http://www.rail-reg.gov.uk/server/show/ConWebDoc.9172

Network Rail monitor
Quarter 3 of Year 2 of CP4, 17 October 2010 - 8 January 2011

Customer service

Engineering work at Reading

In the last monitor we highlighted the careful preparations Network Rail had made with train operators, passenger representatives and local authorities to minimise the disruption to rail users from the major programme of engineering work around Reading over Christmas, and to publicise the arrangements being made. Complex engineering work was completed successfully, rail services returned to normal and Caversham Road bridge was re-opened as planned. Feedback from passengers has been particularly positive. This is a good example of the industry working together well to minimise the impact of major engineering work on rail users. **G**

Information about network capability

Following enforcement action by ORR in 2006 Network Rail identified a significant number of places on the network where actual capability did not match the published capability in terms of **gauge, route availability or track mileage**. It has finally resolved the last of these discrepancies, by restoring the published capability or by changing it through the industry network change processes, as appropriate. In some cases where restoration is planned but has not yet taken place, Network Rail has temporarily reduced the published capability through the 'short term network change' process. It has also introduced measures to ensure that future changes to capability are agreed with operators and recorded properly. We now require the company positively to certify in its annual return[4] that it is compliant with its obligation to maintain capability as published. We will continue to **G**

monitor progress of the short term network change proposals as they come up for review over the next two years.

We have called for Network Rail to establish what information its stakeholders need about **network power supply capability** and to make any necessary improvements. It held an industry workshop at the end of January where the key information requirements were agreed. It will now develop this information and hold a further workshop by the end of April.

Electric traction current

We have told Network Rail that we are not satisfied with the way it is **managing losses** in electric traction current systems and that we wish to see more progress taking forward the recommendations made by the independent reporter AMCL in November. **Y**

Network Rail has now held a cross industry meeting to review the feasibility of efficiency improvements. Train operators, who bear the financial cost of losses, highlighted this as a positive step forward. We will make sure this process continues to work, with the aim of reducing electrical energy costs across the industry.

Network Rail also has to **estimate transmission losses** to support those operators who now wish to opt-in to on train metering. So far we do not consider its work to estimate these is satisfactory. We have asked it to show how it will ensure that these estimates do not transfer undue financial risk to non-metered operators and we are pleased that it is making progress putting a proposal to the industry. A good estimate of losses is also important to help us understand how we might encourage energy efficiency in CP5 and we are still awaiting a robust plan and quality assurance of Network Rail's work in this area. **Y**

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[4]   We wrote to Network Rail on 18 January 2011. A copy of our letter is available on our website at http://www.rail-reg.gov.uk/upload/pdf/infra-capability-prog-orr-letter-180111.pdf

Customer service

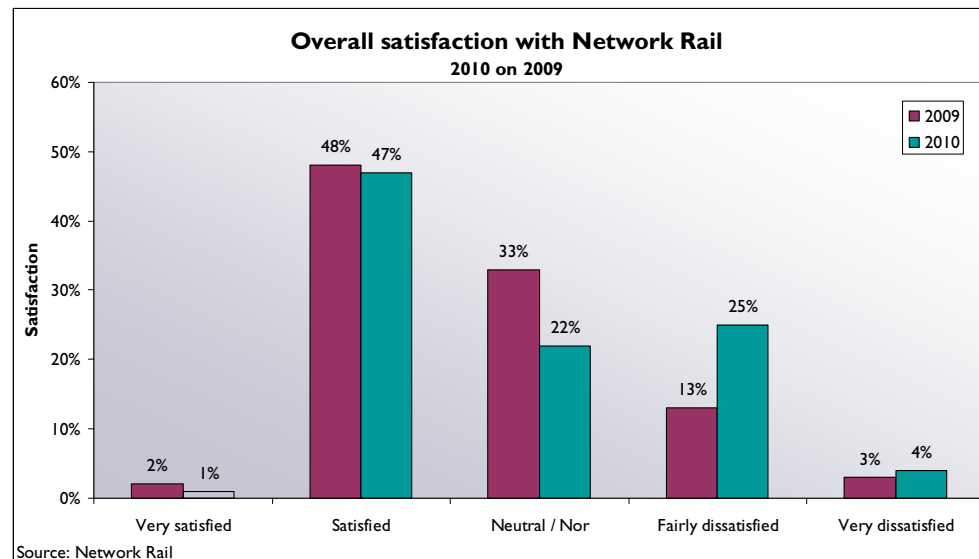**ORR** OFFICE OF **RAIL REGULATION**

Customer satisfaction survey

Network Rail commissions an annual survey of how its customers (train operators) think it is doing. This year's survey was conducted by GfK. Initial results show that overall satisfaction was down by 0.17 to 3.15 (on a scale of 1 to 5); for passenger operators it fell 0.19 to 3.16, but freight operator satisfaction increased by 0.16 to 3.11[5].

The main movement in the survey is a reduction in the number of customers expressing a neutral view, with an increase in those fairly dissatisfied. Two factors influencing this seem to be the problems caused by the introduction of ITPS, for which we found Network Rail in breach of its licence, and the fall-off in train performance.

Network Rail is now reviewing the results in detail and discussing them with its customers; we will report further in the next monitor.

Y

Overall satisfaction with Network Rail
2010 on 2009

Legend: 2009, 2010

	Very satisfied	Satisfied	Neutral / Nor	Fairly dissatisfied	Very dissatisfied
2009	2%	48%	33%	13%	3%
2010	1%	47%	22%	25%	4%

Source: Network Rail

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[5]   Satisfaction is measured on a 5 point scale where 5 is very satisfied and 1 is very dissatisfied.

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Train service performance

Overview

Performance was seriously affected by the severe winter weather, and measured performance fell steeply despite many operators running 'contingency' timetables[6].

We recognise that great efforts were made across the industry to keep services running. The early onset, and severity, of the conditions caused great difficulties for all transport modes, and many railways in western Europe experienced disruption. In the UK some lessons from previous periods of severe weather had been learned and were applied. For example, there was improved protection of key depots and access to fuel supplies. In places 'key route strategies' were implemented to focus resources on keeping the most important services running. Operators took further steps to improve the resilience of rolling stock. But there will again be lessons to learn and we believe this must happen quickly; any practical steps which can improve the way such conditions are handled in the future must be taken now. We welcome the action by Network Rail and the National Task Force to commission independent reviews of both autumn and winter performance, to draw out lessons for the future.

It is now clear that Network Rail will fail to meet most of the 2010-11 regulatory requirements we set in PR08 for PPM, CaSL, passenger and freight delay minutes. Failure to meet these requirements is evidence of a possible licence breach. We have written[7] to the company stressing that it must first stay focused on delivering the best possible performance for the rest of the year. We said that we will then ask whether it can demonstrate clearly that it has taken all reasonably practicable steps in accordance with best practice to achieve the

required performance over the year. We will hold a substantial review of this matter with Network Rail during March, but we will await the full year results before taking a final decision on licence compliance.

Public Performance Measure (PPM)

PPM is now below target for all but the regional sector train services. Some especially poor performance figures from period 11 last year will soon drop out of the moving annual average (MAA) but it is now clear that many full year requirements will not be achieved.

Source: Network Rail
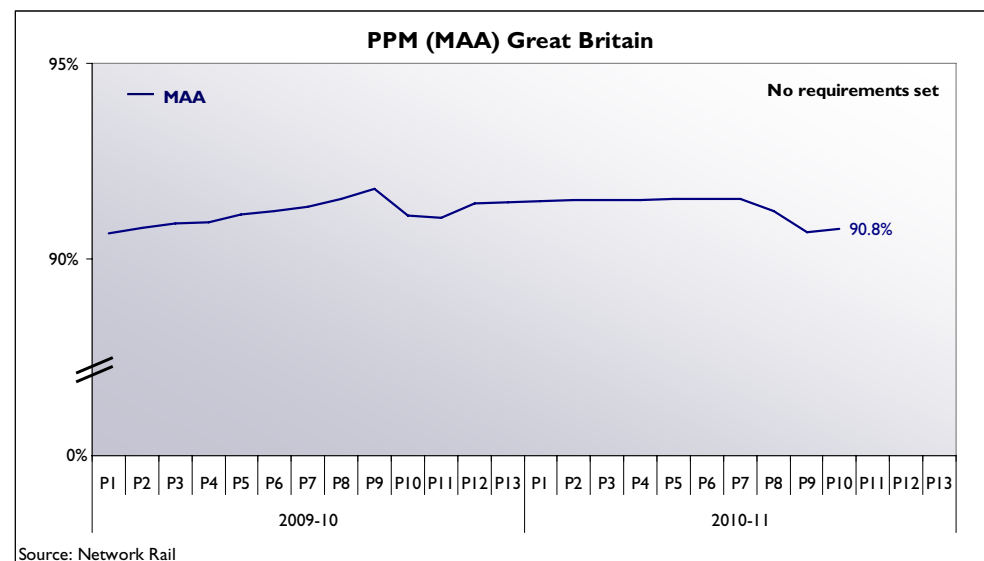
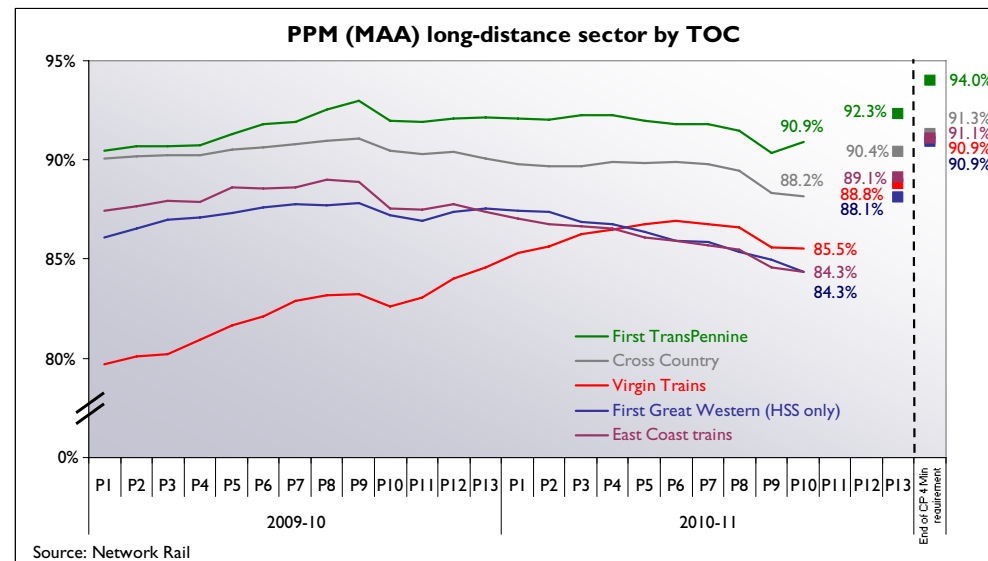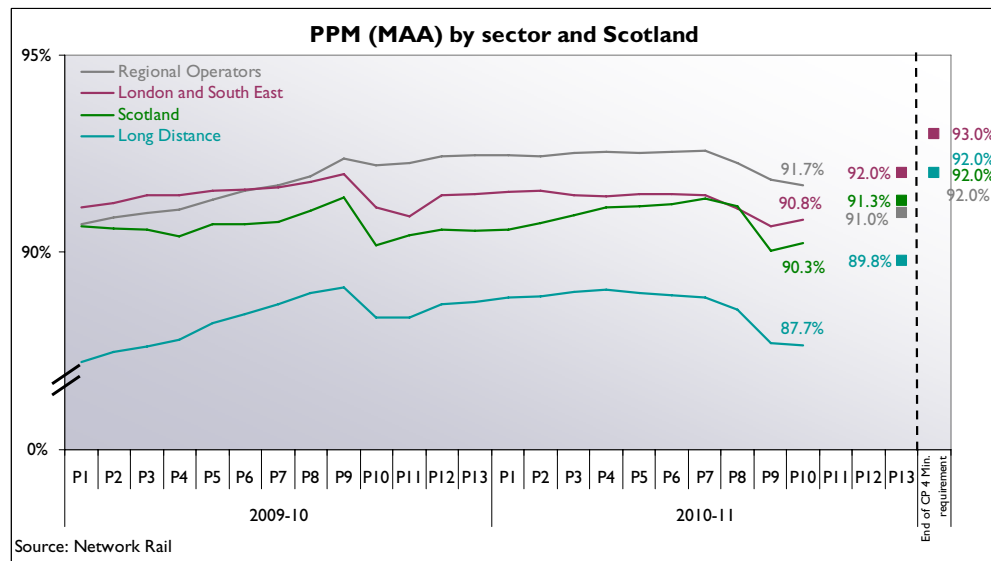This is also true for Scotland even though PPM there was running well ahead of target at the end of Q2 and the industry was successful in keeping the network open (in contrast to roads and airports).
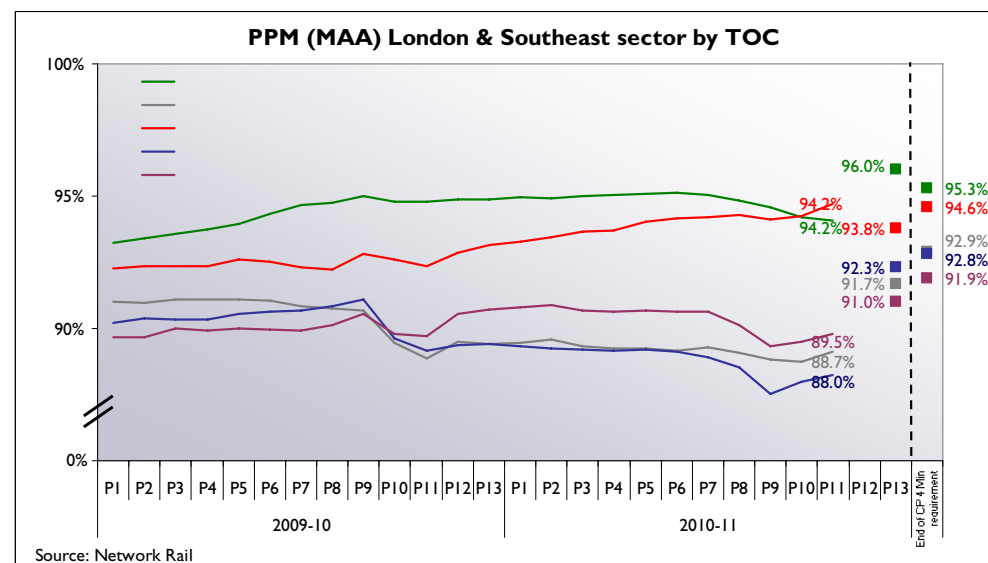
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[6] PPM is measured against revised timetables.
[7] Our letter to Network Rail is available on our website at http://www.rail-reg.gov.uk/upload/pdf/operational-performance-orr-letter-120111.pdf

Train service performance

PPM (MAA) by sector and Scotland

Legend:
- Regional Operators
- London and South East
- Scotland
- Long Distance

Labels on chart: 91.7%, 92.0%, 92.0%, 92.0%, 90.8%, 91.3%, 91.0%, 93.0%, 90.3%, 89.8%, 87.7%

2009-10   2010-11

Source: Network Rail

PPM (MAA) long-distance sector by TOC

Legend:
- First TransPennine
- Cross Country
- Virgin Trains
- First Great Western (HSS only)
- East Coast trains

Labels on chart: 94.0%, 92.3%, 91.3%, 91.1%, 90.9%, 90.9%, 90.4%, 90.9%, 89.1%, 88.8%, 88.2%, 88.1%, 85.5%, 84.3%, 84.3%

2009-10   2010-11

Source: Network Rail

Individual TOC performance

We remain particularly concerned at the continuing poor performance of **East Coast** services. The route was badly affected by the severe weather, but performance has not yet recovered to the encouraging levels reached briefly in early autumn. Network Rail is implementing a comprehensive programme to deal with non-track asset failures, but this will take some time to have its full effect. The company needs to do more to restore performance in the very short term.

YR

PPM (MAA) London & Southeast sector by TOC

Labels on chart: 96.0%, 95.3%, 94.2%, 94.6%, 94.2%, 93.8%, 92.9%, 92.8%, 92.3%, 91.9%, 91.7%, 91.0%, 89.5%, 88.7%, 88.0%

2009-10   2010-11

Source: Network Rail

Train service performance

First Great Western has experienced declining performance since mid-2010, a key factor being an increase in Network Rail asset failures especially in the Thames Valley area. We are meeting Network Rail and FGW shortly to understand how Network Rail intends to improve performance on this route.

Y

Southern Railway has asked for our assistance in connection with increasing levels of Network Rail delay. As well as reviewing a revised short-term recovery plan we will ask the independent reporter to advise on underlying asset performance issues affecting the route, including the robustness of power supply systems.
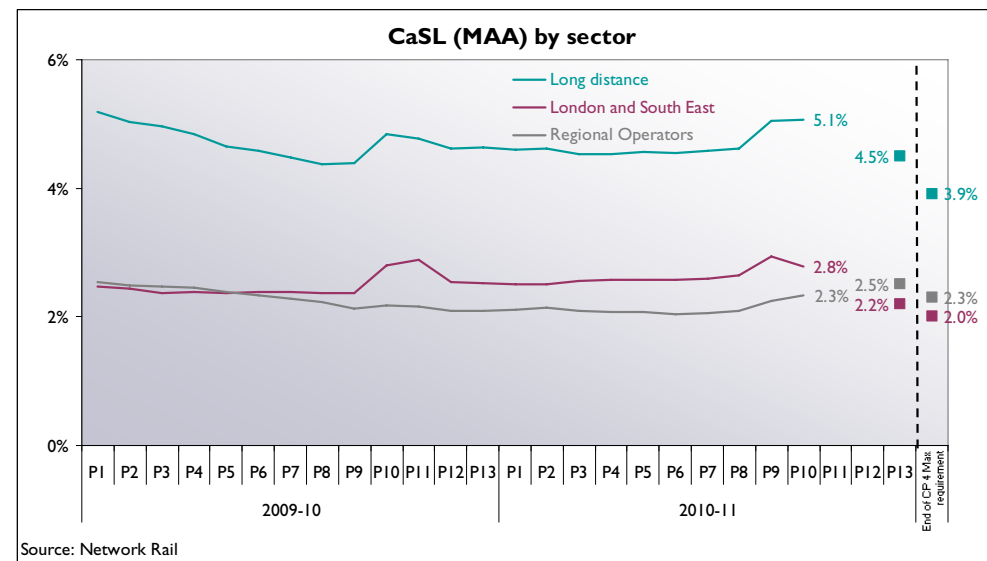
Y

We have also recently been contacted by **Southeastern, First Capital Connect** and **National Express East Anglia** about poor performance affecting their services. We will meet with Network Rail and each operator to investigate the causes of these problems and to understand what Network Rail is doing to rectify them.

Y

Cancellations and significant lateness (CaSL)

CaSL[8] is worse than target for long distance and London & South East operators, who were particularly affected by the snow in periods 9 and 10. As with PPM, some especially poor figures from period 11 last year will drop out of the MAA but it still seems unlikely that Network Rail will achieve the end of year performance requirements for these sectors.

YR

CaSL (MAA) by sector

Legend: Long distance, London and South East, Regional Operators

5.1%, 4.5%, 3.9%, 2.8%, 2.5%, 2.3%, 2.2%, 2.3%, 2.0%

2009-10   2010-11

End of CP4 Max requirement

Source: Network Rail

Network Rail delay to passenger and freight trains

The snow and ice led to substantially increased delays despite the emergency timetables that were put in place and Network Rail is now well adrift of its targets.
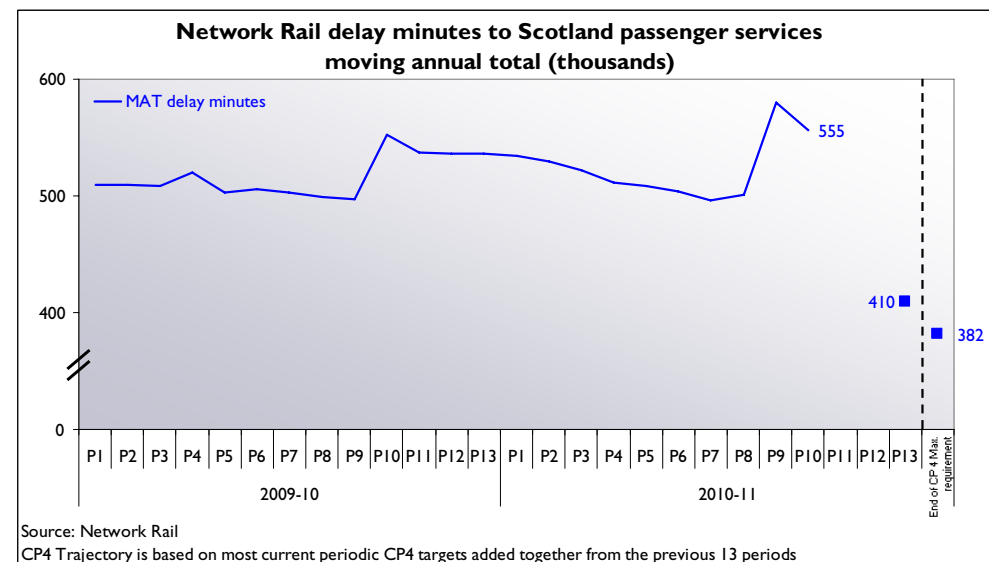
YR

Operational planning errors are also a concern. Delays from this cause account for 4.5% of Network Rail delay and are running at about twice the expected level. One reason is thought to be the shortage of experienced staff in the train planning unit since its move to Milton Keynes. We visited the unit and saw that Network Rail is training additional planners and working closely with its Integrated Train Planning System (ITPS) supplier to make system changes in March that should reduce the scope for human error. We will review progress in April, when these changes should start to bear fruit.

Y

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8   CaSL is measured against revised timetables.

Train service performance

Network Rail delay minutes to England & Wales passenger services moving annual total (thousands)

Source: Network Rail

Network Rail delay minutes to Scotland passenger services moving annual total (thousands)

Source: Network Rail
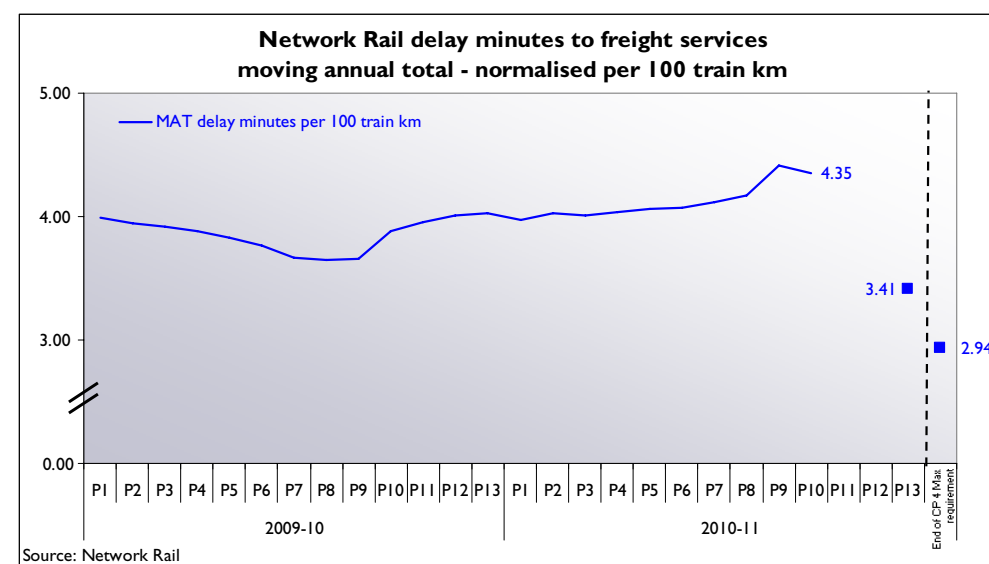CP4 Trajectory is based on most current periodic CP4 targets added together from the previous 13 periods
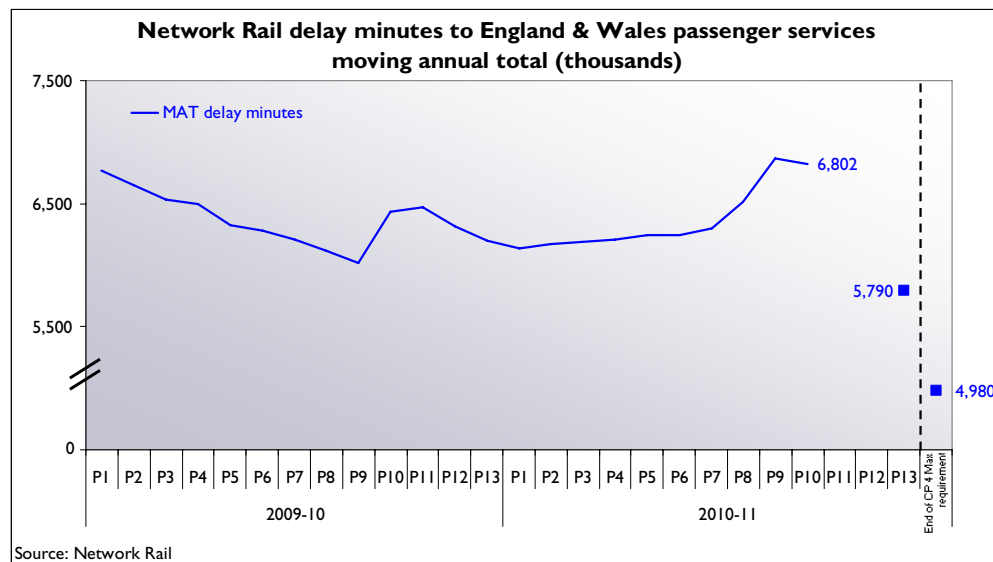
Scotland

As with the rest of the network, performance in Scotland was significantly affected by the severe winter weather. Network Rail caused delay minutes are 36% worse than target so far in Scotland and the year end requirement has already been missed. We will consider this in our assessment of missed regulatory requirements at the end of the year.

Freight

Freight performance is still well adrift of the regulatory requirement. It has been getting worse throughout the year. Network Rail has not yet given us a clear explanation of why performance is so poor, or how it intends to deliver its obligations and meet its customer requirements. It must do this urgently.

Network Rail delay minutes to freight services moving annual total - normalised per 100 train km

Source: Network Rail
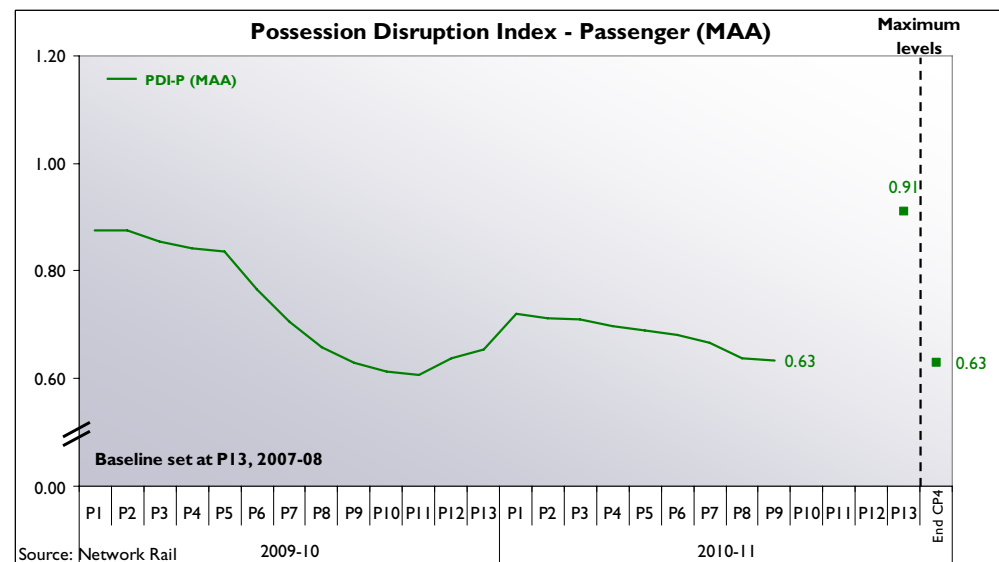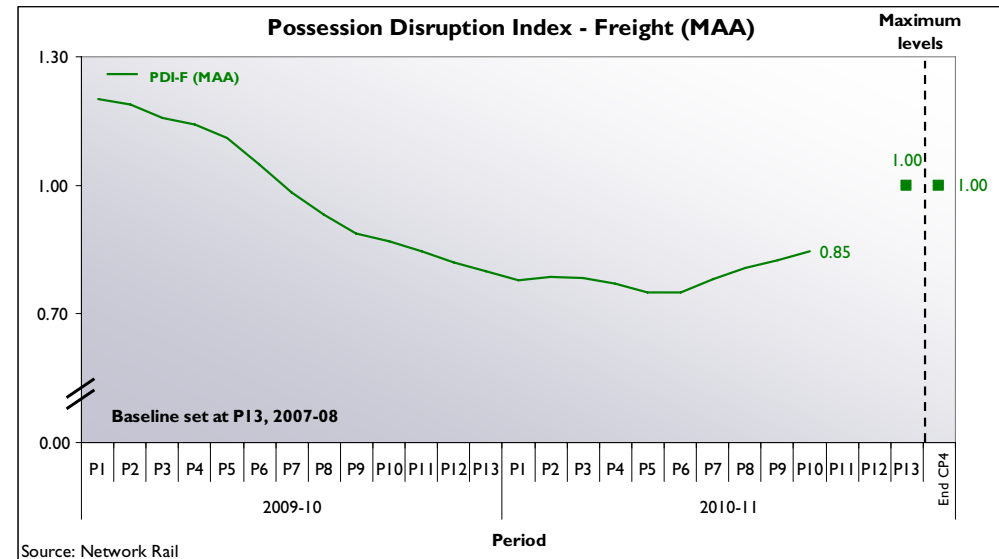
13

Train service performance

Network availability - reducing planned disruption

While both passenger and freight disruption indices have been falling much faster than the regulatory requirement, we have been pressing Network Rail to produce a robust plan setting out how it will meet the PR08 requirements over the whole control period. To support this Network Rail has developed a new tool to forecast future levels of PDI. Using this shows that both indices will rise as the volume of work on the network increases, and that without further steps to reduce the impact of possessions on rail users the PR08 requirements would not be met in the latter part of CP4. The implementation plan will therefore need to set out what further measures are planned to deliver these requirements.

G

Since April 2009 planned disruption due to engineering work has been measured and reported for the first time against a new regulatory requirement set for Network Rail. Essentially the effect of every service change is assessed in terms of the extension of passenger journey times due to cancellations or diversions, taking account of the likely numbers who would have travelled on the affected services. The results are expressed as an index.

Disruption to freight services is measured in a slightly different way, based on the extent to which different parts of the network are closed or restricted for engineering work, weighted by the amount of freight traffic using the sections in question.

Possession Disruption Index - Freight (MAA)

Maximum levels

PDI-F (MAA)

1.00

1.00

0.85

Baseline set at P13, 2007-08

P1 P2 P3 P4 P5 P6 P7 P8 P9 P10 P11 P12 P13 | P1 P2 P3 P4 P5 P6 P7 P8 P9 P10 P11 P12 P13 | End CP4

2009-10   2010-11

Period

Source: Network Rail

Possession Disruption Index - Passenger (MAA)

Maximum levels

PDI-P (MAA)

0.91

0.63

0.63

Baseline set at P13, 2007-08

P1 P2 P3 P4 P5 P6 P7 P8 P9 P10 P11 P12 P13 | P1 P2 P3 P4 P5 P6 P7 P8 P9 P10 P11 P12 P13 | End CP4

2009-10   2010-11

Source: Network Rail

ORR OFFICE OF RAIL REGULATION

Overview

This quarter saw good progress on many major enhancement projects including the Ayrshire Inverclyde platform extensions and a successful track-switch at Blackfriars to allow 12-car trains to stop there as part of the Thameslink Programme. The new Airdrie to Bathgate link was opened to services on 12 December as planned. **G**

Christmas and New Year possessions

Before Christmas we looked at Network Rail's plans for managing possessions to minimise disruption over the holiday period. We found evidence it was using its new processes, assessing the complexity and risk status of all worksites and making decisions on what work to carry out at the appropriate time. For high risk sites, readiness reviews, risk assessments and contingency planning was done. **G**

The majority of planned work was completed within the allocated time including the successful completion of an 18 day blockade to deliver a key stage of the North London Line upgrade. There was a small number of overruns, the most serious affecting services into London Liverpool Street after the New Year bank holiday. Overruns at Clapham Junction and Paisley had been anticipated before Christmas, as preparatory work had been disrupted by the bad weather, but train operators had agreed the work should go ahead rather than being deferred to later in the year. Some work was deferred as a result of the freezing conditions, including postponement of bridge work at Birmingham New Street for safety reasons. Network Rail is looking to secure a further possession next Christmas to complete the delayed works and recover any impact on the overall programme. Separately, we are investigating an incident at Clapham where a crane worker was seriously injured.

Disruption from possession overruns

Through our regular monitoring, and particular problems having been highlighted by National Express East Anglia, we have become concerned at a rising trend in possession overruns and consequential delays and cancellations. We have called on Network Rail to explain what is causing this and what steps it is taking to reverse the trend. **Y**

Enhancement delivery plan changes

In December we approved a number of changes to the delivery plan. Delivery of the east coast mainline overhead line renewals will be delayed to allow a less disruptive method of delivery, with the agreement of East Coast Trains. Network Rail has updated the delivery date for Gatwick airport now that it has secured third party funding. It has also updated details for several Scottish projects as they have developed.

There is still uncertainty about the Intercity Express Programme (IEP), further electrification of the Great Western and the extent of rolling stock availability across the network. These issues affect a number of projects in different ways. Some, such as the Northern Urban Centres, will be held up by this uncertainty, but Network Rail should continue to develop other projects, particularly those linked to rolling stock cascade, according to its commitments set out in its delivery plan.

Projects and Funds in England & Wales

Thameslink programme

We asked the independent reporter Nichols to review whether the power supply works proposed by Network Rail for the Thameslink project are justified and the costs appropriately allocated to the **G**

project. This was necessary because of the complex interfaces with other projects such as IEP and platform lengthening. The report[9] was positive about the position on Thameslink but identified possible gaps in the plans for IEP, although the precise needs will be reviewed once the decision on IEP is taken.

Waterloo International

We previously reported delay to the delivery of works at Waterloo station to allow 10 car trains, mainly due to factors outside Network Rail's control. The company now expects to deliver the longer platforms by March 2014. No announcement has yet been made on when the longer trains will be available but we have told Network Rail to consult DfT and SWT on the new dates.

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Freight network

Network Rail and DfT have submitted a joint request for us to consider approval to fund a number of freight gauge and capacity schemes through adding them to the regulatory asset base (RAB). These schemes were previously funded by the Transport Innovation Fund (TIF), which has now been withdrawn. The majority are well advanced and some are substantially complete. We will be analysing the schemes in detail to confirm the level of efficient expenditure we consider is eligible for adding to the RAB.

Access for all

The independent reporter Halcrow has reviewed[10] delivery of this programme against Network Rail's commitments in its CP4 delivery plan. The review was largely positive, finding that Network Rail achieves value for money by selecting the right option, but highlighted

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that the rate of station completions remains a concern. We have also looked at the costs of the programme to ensure it is delivering efficiently. Following this work, we are putting in place an enhanced monitoring regime with Network Rail which will provide more certainty in terms of cost, productivity and programme, and with which we can assess Network Rail's overall compliance with its obligations.

National Stations Improvement Programme

We have raised concerns with Network Rail about the delivery of this programme. We have asked the independent reporter Halcrow to review governance arrangements to determine if these are working effectively. It will review a sample of schemes to determine whether they have been delivered efficiently and in line with the agreed approach. We have also asked the reporter to review whether the programme is likely to deliver on time and, if not, make recommendations on how to improve the likelihood this.

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GSM-R

The GSM-R trial in Strathclyde is substantially complete and the final stage will demonstrate whether system reliability is acceptable. Network Rail and ScotRail have worked hard to understand and resolve the performance issues that arose when the system was first introduced. We anticipate that formal recognition of the trial's completion will take place in the next few months. The system is already in operation on the west coast mainline and in February it was introduced in partnership with East Coast trains on the east coast mainline south of Grantham. The next phase to go live will be on Stansted services in May.

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[9]   An executive summary of the report can be found at: http://www.rail-reg.gov.uk/server/show/nav.2231
[10]   An executive summary of the access for all report is available on our website at http://www.rail-reg.gov.uk/server/show/ConWebDoc.9777

Developing the network

ORR OFFICE OF RAIL REGULATION

ERTMS

Commissioning of the next phase of ERTMS on the remainder of the Cambrian route has been delayed again. **Y** This is to be the first formal authorisation of ERTMS under European interoperability rules. Outstanding issues include demonstrating the reliability of certain systems issues and final completion of the technical files required for authorisation, which has proved more time consuming than expected. Commissioning is currently planned for late March.

We have agreed with Network Rail and DfT to commission a 'lessons learned' review to draw out of the Cambrian project experience all lessons, technical and commercial, which are relevant to planning the national implementation of ERTMS.

Projects and Funds in Scotland

Paisley corridor improvements

Work continues on the infrastructure and signalling renewal work **G** according to programme and the project remains on course for substantially completing the main corridor works by January 2012.

Edinburgh to Glasgow Improvements Programme

Design work on the electrification and infrastructure elements of this **G** programme has started and is progressing according to schedule. The single option selection should be completed by June 2011.

Investment framework

Monitoring the framework

In October 2010 we published our consolidated policy and guidelines, **G** which sets out our approach to monitoring the investment framework.

We have used the independent reporters Nichols to investigate barriers to investment by train operators at stations and we are using Halcrow to assess the effectiveness of Network Rail's initiatives to reduce obstacles to third party investors.

As a result of the Nichols work we asked Network Rail to respond to the study and specifically to provide more data on its charges for asset protection work (i.e. when Network Rail provides services to third parties who are doing something that affects the existing network). Network Rail has done this and we welcome the work it is doing to benchmark its costs to provide greater understanding of its charges to investors.

We have also asked Network Rail to provide an assessment of the fees it charges to third party projects to cover risks; once we have a larger sample, we will re-assess whether the fees are set at an appropriate level.

As part of our regular monitoring role we will continue to investigate any complaints made to us by investors. Contact details for issues relating to the investment framework are on our website.[11]

Evergreen 3

We asked the independent reporter, Halcrow, to review progress on phase 1 of the Evergreen 3 project, which is designed to improve journey times between London and Birmingham via Banbury. The report[12] identified problems with the project's progress. Network Rail has agreed to take over management of the project from Chiltern Railways. Following a review of delivery options it has been agreed to postpone the planned introduction of new services until September.

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[11] Contact details for investor feedback can be found at: http://www.rail-reg.gov.uk/server/show/category.190

[12] An executive summary of the Evergreen 3 report can be found at http://www.rail-reg.gov.uk/server/show/nav.2231

Developing the network

CP5 Review

The cross-industry planning ahead group wrote to us at the end of January describing how it intended to develop an Initial Industry Plan (IIP) by September 2011. The IIP will be a unique opportunity for the industry to advocate a convincing, affordable strategy that will meet the needs of its passengers and customers, and provide the information to ORR and to government required for the next periodic review. We are encouraged by the positive approach the industry is taking[13] and we have responded setting out some specific requirements the IIP should meet.

Route Utilisation Strategies (RUSs)

Network Rail published the addendum to the east coast main line RUS in December. We assessed it taking into account representations made to us about the economic analysis and freight capacity. We decided that the there were no grounds to object and the strategy was established on 10 February[14].

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[13]   Our letter to the Planning Oversight Group on IIP is available on our website at http://www.rail-reg.gov.uk/server/show/nav.2446

[14]   Our letter regarding the east coast main line RUS can be found at http://www.rail-reg.gov.uk/upload/pdf/rus-ecml-capacity-100211.pdf

Asset management

'Asset management' is our term for Network Rail's stewardship of the railway infrastructure. It covers the planning and delivery of maintenance and renewals. This section of the monitor also deals with consequent asset performance.

Asset Planning

Reaching best practice

In January ORR and Network Rail boards met and agreed trajectories for Network Rail's improvement in two key enablers of better safety, performance and efficiency: *safety maturity*[15] and *asset management capability*. The importance of these enablers is reflected in ORR's corporate strategy objectives.

Drawing on the independent reporter AMCL's spring 2010 Asset Management Roadmap, Network Rail has drawn up a plan to develop its asset management capability to best practice levels. This sets out a work programme and list of capability deliverables, with trajectories of projected progress on the basis of AMCL's asset management maturity assessment model. Key commitments include a costed plan for substantial improvements to asset management IT to be presented in September 2011, and plans to base all asset policies on analyses of whole life cost, performance, capacity and operational flexibility by October 2012. Inspection and maintenance policies will reflect a risk-based approach for medium and high criticality assets by October 2012. Network Rail will publish its full response to AMCL's Roadmap on its website. We will monitor delivery of the roadmap trajectories to ensure that Network Rail is progressing towards best practice, and

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[15]   See our website for more details http://www.rail-reg.gov.uk/server/show/nav.1098

to provide progressive assurance about the quality of its input to the Initial Industry Plan and Strategic Business Plan as part of PR13.

Asset key performance indicators (KPIs)

In autumn 2010 the independent reporter AMCL recommended that the suite of KPIs on which Network Rail reports asset condition, in accordance with our PR08 determination, be augmented by high level condition statements for each asset group. These will report condition in five grades, following an approach well established in utility regulation.

Network Rail is developing trial grading systems for two asset groups, but we are concerned that progress is slow. We therefore arranged joint workshops for February and March, to accelerate the work.

Management of civil structures

The independent reporter Arup has issued its report on Network Rail's civil engineering structures management, commissioned because of our serious concerns about the area. The lengthy report, which deals with both economic and safety matters, has been the subject of detailed scrutiny by ORR and Network Rail. It highlights several areas of concern including the absence of formal lifecycle planning and no evidence of a formal, comprehensive 'unconstrained workbank' at route or national level. There is an absence of uniform documented national rules on how to select or prioritise between the same types of asset and between asset groups as well as shortfalls in asset knowledge and IT functionality. Network Rail is now working with Arup on an improvement plan to address these concerns.

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Station and light maintenance depot condition reporting

For this control period we set a regulatory requirement for average station condition. We also required Network Rail to set a trajectory for depot condition in its delivery plan. The independent reporter

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Asset management

Arup has audited Network Rail's reporting of these condition measures. Although Network Rail has improved the accuracy and reliability of the data, Arup highlight a systematic bias in station condition; as measured by residual life, station condition appears to be 6% better than Network Rail has been reporting. We are considering whether this requires us to revise the PR08 requirements. Arup's depot condition audits found that only two out of five sites visited had sufficient data readily capable of audit. This is unsatisfactory and we are investigating whether it is typical of Network Rail's depot condition data.

PR13 asset information audits

We are planning a series of independent reporter desktop and field audits of the asset information which will underpin Network Rail's PR13 submissions. These will start in April and take 15 months to complete.

Whole life costing

Network Rail has presented its ongoing work to resolve shortfalls in the accuracy of its maintenance and capital unit costs (MUCs and CAFs). Good progress is being made with CAFs, using an approach which is clearly on the way to best practice. Progress is slower with MUC improvement, and Network Rail has confirmed that it does not, at present, intend to automate calculation (which we understand is best practice), instead relying on improving staff timesheet recording. We shall require demonstrable progress towards our targets for data reliability in time for Network Rail to prepare its SBP for CP5. We have set out the sensitivity analyses Network Rail needs to do to enable us to set these targets.

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Asset Delivery

Renewals

Network Rail has delivered 11% less plain line renewal than planned for the year to date. This shortfall results from delays commissioning new high output plant, and the situation is unlikely to improve by the year end. Network Rail expects to recover the shortfall over the coming financial year, and has reaffirmed that it will deliver the full planned CP4 volume. There is a similar shortfall on switch and crossing renewal but Network Rail projects that this will be recovered by the year end, including in Scotland. We will continue to monitor these volumes.

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Network Rail has told us that its forecast of delivery of conventional signalling equivalent units (SEUs) this year is below the delivery plan target due to delays in commissioning at Newport. Achievement of this year's plan figures for ERTMS SEUs depends on the Cambrian scheme being completed.

Network Rail has confirmed that forecast SEU figures in its 4-weekly financial report to us are wrong. We are concerned about unreliable forecast data in submissions to ORR and are investigating the extent of the issue. We are also prioritizing a full audit of the accuracy and reliability of actual volume data through independent reporter Arup.

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New technology

We wrote to Network Rail in January 2009 and again in February 2010, expressing dissatisfaction with its management of the introduction of new technology. We cited a number of examples of poor planning and implementation, including new 'high performance' points and axle counters. Since then we have continued to press

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Asset management

Network Rail to improve the way it identifies, selects and implements innovative solutions for use on the rail network.

In response, the company has developed a 'New Product Introduction Process' (NPIP). This identifies and selects promising ideas, seeks to develop them quickly and to assess and manage roll-out risks. In January Network Rail invited us to review a number of pilot projects being processed through the new approach. NPIP appears robust, and we are satisfied that it is dealing with our previous concerns. **G**

Network Rail also launched, in February, a supplier innovation and suggestion scheme, through which it invites proposals via a dedicated innovation portal. The website is part of a new, streamlined process, designed to increase the flow of ideas into NPIP. The site provides guidance on Network Rail's priorities and requirements, helping suppliers to focus and reduce R&D costs and risks.[16]

We will continue to monitor NPIP through its imminent roll-out, to ensure that it consistently delivers the required improvements in technology selection and implementation.

Asset Performance

Track assets

Delays caused by track assets in the year to date are 3.5% higher than last year. Whilst in absolute terms the figures remain low, the trend has been a matter of concern. We raised the matter with Network Rail and required it to analyse and report the causes. **Y**

The rise in delays is in those due to track faults and broken rails (up 9%); the impact of temporary speed restrictions due to track condition

is falling across most of the network. The incidence of broken rails remains well below CP3 levels and those of comparable European networks. The difficult autumn led to increases in the numbers of wheel 'flats', and winter saw extremely low and rapidly changing temperatures, all of which increase the risk of broken rails, so this rise may be temporary rather than reflecting underlying deterioration. Track geometry measures are now generally improving again. Network Rail is also introducing new management practices. At this stage we accept the company's assurance that these will lead to improvement in delays for the network as a whole within months.

Non-track assets

Despite a downward trend in the number of non-track asset incidents delay minutes are increasing due to a rise in delay per incident (DPI) across many asset types. The underlying causes of this are not yet understood by Network Rail. We have raised this as an area of serious concern and have asked the company to identify the root causes and develop remedial plans. **Y**

So far this year delays attributable to track circuit failures are 5% worse than last year, those from OLE/third rail faults are 8% worse. Delays from signalling systems & power supplies are 14% worse; in this case the number of incidents is itself also rising. Network Rail needs to identify and tackle the reasons for this.

Network Rail is now in the middle of its extensive roll-out of remote condition monitoring, which should improve non-track asset performance by enabling much more 'predict and prevent' maintenance. We have asked the company to monitor and report on the costs and benefits of this programme.

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[16] See Network Rail's website for more details http://www.networkrail.co.uk/aspx/12000.aspx

Scotland summary

This monitor gives our assessment of Network Rail's performance up to the third quarter of 2010-11, which ended on 8 January 2011.

Customer service

Passengers and freight customers suffered serious **service disruption** during the severe weather. Exceptional efforts were made across the railway to keep trains running, sometimes in the most hostile conditions, and great credit is due. But where there are lessons to learn this must happen quickly.

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The quality of **information provided** was variable. There were some improvements, notably where 'contingency' timetables were introduced early, but much information was again very poor.

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Network Rail has a key role and has been managing initiatives including special training for staff and revised short-term planning arrangements to help operators introduce and communicate contingency timetables.

We commissioned the independent reporter Arup to review the industry's compliance with its new code of practice. The first backchecks on disruption in England in December show that the three operators studied have comprehensive policy documents but are at different stages in rolling these out. Network Rail is supporting its customers but there are important issues to be addressed, such as how timetable changes are agreed and how Network Rail ensures that the resulting service plans are compatible across the network. Arup are now undertaking a case study in Scotland; we will publish the conclusions on our website.

We wrote to the National Task Force emphasising the importance of its role in this area. We welcome its decision to take direct ownership of improvement plans in 2011 and we are monitoring progress.

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:

G Network Rail delivery is satisfactory or good.

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

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

R 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:
Nigel Fisher on 020 7282 2112 or Nigel.Fisher@orr.gsi.gov.uk

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Developing the network:
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Asset management:
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Statistics in this publication:
Jay Lindop on 0207 282 3978 or Jay.Lindop@orr.gsi.gov.uk

Network Rail has finally resolved all discrepancies between actual and published **network capability** (the subject of enforcement action in 2006). We now require it to certify each year in its annual return that it is compliant with its obligation to maintain capability as published. **G**

We have called for Network Rail to establish what information its stakeholders need about **power supply capability** and to make any necessary improvements. An industry workshop in January agreed key information requirements; a follow up will be held in April.

We are not satisfied with Network Rail's **management of losses** in electric traction current systems. Train operators welcomed a cross industry meeting to review the feasibility of efficiency improvements. **Y** Network Rail also has to **estimate transmission losses** to support those operators who opt-in to on train metering. We have asked it to **Y** show how it will ensure that these estimates do not transfer undue financial risk to non-metered operators.

Results from Network Rail's annual survey of its customers (train operators) show that, overall, customer satisfaction was down by 0.17 to 3.15 (on a scale of 1 to 5), although freight operator satisfaction **Y** increased by 0.16 to 3.11. Factors influencing this seem to be the ITPS problems, for which we found Network Rail in breach of its licence, and poor train performance. Network Rail is now discussing the results with its customers; we will report further in the next monitor.

Train service performance

Performance was seriously affected by the **severe weather** in Scotland, despite great efforts by many people which kept services running. The timing and severity of the conditions caused difficulties for all transport and many railways in western Europe experienced disruption. Some lessons from previous severe weather had been learned, but there will be more and this must happen quickly; any

practical steps which can improve the way such conditions are handled in the future must be taken now. We therefore welcome the action by Network Rail and the NTF to commission independent reviews of both autumn and winter performance, and we will expect to see these quickly and effectively followed up.

Network Rail will fail to meet most of the **regulatory requirements** we set in PR08 for train performance in 2010-11. We treat this as **YR** evidence of a possible licence breach. We have written to the company stressing that it must focus on delivering the best possible performance for the rest of the year. We said that we will then ask whether it can demonstrate clearly that it has taken all reasonably practicable steps in accordance with best practice to achieve the required performance over the year. We will hold a substantial review of this matter with Network Rail during March, but we will await the full year results before taking a final decision on licence compliance.

We remain particularly concerned at the performance of **East Coast** services. Performance has not yet recovered to the encouraging levels **YR** reached briefly in early autumn. Network Rail is implementing a programme to deal with non-track asset failures, but needs to do more to restore performance in the very short term.

Delay due to **operational planning errors** is running at around twice the expected level and is contributing to the overall excessive levels of Network Rail delay. This may be due to shortage of **Y** experienced staff in the train planning unit since its move. We visited the unit and saw that Network Rail is training additional staff and planning a further ITPS upgrade to reduce the scope for human error.

While **disruption from planned engineering work** has been falling much faster than the regulatory requirement, we have been pressing **G** for a robust plan setting out how Network Rail will meet the PR08 requirements over the whole control period. A newly developed

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forecasting tool shows that both indices will rise as the volume of work on the network increases, and that without further steps to reduce the impact of possessions the requirements would not be met in the latter part of CP4. The implementation plan will need to set out how Network Rail plans to deliver these requirements.

We have become concerned at a rising trend in **possession overruns** across the network. We have called on Network Rail to explain the causes and what steps it is taking to reverse it.

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Developing the network

The new **Airdrie to Bathgate** link was opened to services on 12 December as planned, although opening of three intermediate stations was deferred as weather conditions had prevented completion of some work elements.

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This quarter saw good progress on projects including the **Ayrshire Inverclyde platform extensions**. Work continues on the infrastructure and signalling renewal work for **Paisley corridor improvements** according to programme and the project remains on course for substantially completing the main corridor works by January 2012. Design work on the electrification and infrastructure elements of the **Edinburgh-Glasgow Improvements Programme** has started and is progressing according to schedule. The single option selection should be completed by June 2011.

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A review by the independent reporter of the **Access for All** programme was largely positive on efficiency but highlighted that the rate of station completion remains a concern. We are putting in place enhanced monitoring to assess Network Rail's overall compliance with its obligations.

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The Strathclyde **GSM-R** trial is substantially complete. The system is also in operation on the west coast main line and in February it was introduced for East Coast trains on the main line south of Grantham.

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Following work by the independent reporters to investigate barriers to **investment by train operators at stations** and Network Rail's initiatives to reduce **obstacles to third party investors**, we asked Network Rail to provide more data on its charges for asset protection, which it has done. We welcome its work to benchmark its costs to provide greater understanding of its charges. We have also asked Network Rail for information on the fees it charges to third party projects to cover risks; once we have a larger sample we will re-assess whether these are set at an appropriate level. We will continue to investigate any complaints made to us by investors.

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Key enablers: safety maturity and asset management

In January the ORR and Network Rail boards met and agreed trajectories for Network Rail's improvement in two key enablers of better safety, performance and efficiency: *safety maturity*[17] and *asset management capability*. The importance of these is reflected in ORR's corporate strategy objectives.

Drawing on the independent reporter AMCL's spring 2010 Asset Management Roadmap, Network Rail has drawn up a plan to develop its asset management capability to best practice levels. This sets out a work programme and deliverables, with trajectories of projected progress. Key commitments include a costed plan for substantial improvements to asset management IT, plans to base all asset policies on analyses of whole life cost, performance, capacity and operational flexibility, and greater use of risk-based inspection and maintenance

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[17]   See our website for more details http://www.rail-reg.gov.uk/server/show/nav.1098

policies. Network Rail will publish its full response to AMCL's Roadmap on its website. We will monitor progress.

Asset management

A report by independent reporter Arup on Network Rail's **civil engineering structures management**, commissioned because of our serious concerns about the area, highlights weaknesses including the absence of formal lifecycle planning, shortfalls in asset knowledge and IT functionality. Network Rail is working with Arup on an improvement plan to address these weaknesses.

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Network Rail has commitments to maintain average **station and depot conditions**. The independent reporter has identified bias in the station condition measure; condition may actually be better than Network Rail has been reporting. This may require us to rebase the company's commitments. The depot condition audits found that only two out of five sites had sufficient data readily capable of audit; we are investigating whether this unsatisfactory position is typical.

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Network Rail has presented its ongoing work to improve the accuracy of its **maintenance and capital unit costs** (MUCs and CAFs). Good progress is being made with CAFs, but progress is slower with MUCs. We require significant further progress in time for Network Rail to prepare its SBP for CP5.

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Network Rail has delivered 18% less **plain line track renewal** than planned so far this year. It expects to recover the shortfall next financial year, and has reaffirmed that it will deliver the full planned volume across CP4 as a whole. A shortfall on switch and crossing renewal should be recovered by the year end.

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Since 2009 we have been pressing Network Rail to improve its management of the **introduction of new technology,** citing poor

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planning and implementation of new 'high performance' points and axle counters. In response the company has developed a 'New Product Introduction Process' to identify promising ideas, develop them quickly and to assess and manage roll-out risks. We have reviewed pilot projects being processed through the new approach and we are satisfied that it is dealing with our concerns. In February the company also launched a supplier innovation and suggestion scheme, inviting proposals via a dedicated innovation portal.

Delays caused by track assets in Scotland are running 56% higher than last year (although this contributes only 6% of GB track asset delay); we called on Network Rail to analyse and report the causes. The rise is in delay due to track faults and broken rails (up 47%) but also to temporary speed restrictions due to track condition. Network Rail believes the increase reflects a few significant incidents and that rapid response to problems was particularly hampered by the severe weather in Scotland. The company is continuing to analyse the reasons. Track geometry measures have followed the GB trend and continue to improve.

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There is a downward trend in **non-track asset incidents** and delay minutes (29% better than last year). However delay minutes due to telecoms failures have increased by 21%. In line with the national trend, the delay per incident is increasing for all asset types. Network Rail needs to identify and tackle the reasons for this. The company is in the middle of its extensive roll-out of **remote condition monitoring**, which should improve non-track asset performance by enabling much more 'predict and prevent' maintenance. We have asked the company to monitor and report on the costs and benefits of this programme.

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Key statistics

Great Britain / England and Wales

	2009-10				2010-11										End of Q3	Regulatory targets	
	P10	P11	P12	P13	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10		End of 2010-11	End of CP4
Network availability															MAA		
Passenger Disruption Index (PDI-P) [r4]	0.85	0.78	0.96	1.18	1.26	0.79	0.30	0.19	0.25	0.36	0.43	0.41	0.42	0.75	0.63	0.91	0.63
Freight Disruption Index (PDI-F)	0.81	0.59	0.61	0.81	0.74	0.97	0.84	0.82	0.85	0.79	0.97	1.02	0.92	1.07	0.85	1.00	1.00
Train performance															MAA		
PPM (including Scotland) [r1]																	
Total PPM	79.9%	89.5%	91.8%	93.5%	94.0%	93.7%	93.0%	92.6%	94.2%	93.5%	92.8%	86.5%	82.1%	81.2%	90.8%	N/A	N/A
Long Distance	74.6%	87.5%	89.7%	91.2%	90.7%	91.2%	90.3%	89.9%	90.2%	90.7%	91.8%	84.8%	76.0%	74.0%	87.7%	89.8%	92.0%
London and South East	79.3%	88.2%	91.4%	93.6%	94.4%	93.8%	92.8%	92.1%	94.7%	93.6%	92.6%	86.9%	83.0%	82.6%	90.8%	92.0%	93.0%
Regional	85.5%	92.4%	93.6%	94.2%	94.1%	93.8%	93.6%	93.8%	93.8%	93.9%	93.2%	85.9%	85.3%	83.1%	91.7%	91.0%	92.0%
FPM (National) [r5]															MAA		
Total FPM	62.2%	71.0%	70.9%	75.4%	79.5%	77.9%	78.2%	76.9%	79.3%	77.1%	77.7%	71.3%	63.1%	62.5%	74.1%	N/A	N/A
CaSL (England and Wales Only)															MAA		
Long Distance	13.0%	4.5%	4.3%	3.8%	3.8%	3.4%	3.6%	4.0%	3.9%	3.6%	3.0%	4.5%	11.2%	13.4%	5.1%	4.5%	3.9%
London and South East	8.6%	3.7%	2.6%	1.6%	1.5%	1.8%	2.2%	2.4%	1.6%	1.9%	2.1%	2.7%	6.7%	5.8%	2.8%	2.2%	2.0%
Regional	4.9%	1.9%	1.7%	1.8%	1.7%	1.9%	1.7%	1.7%	1.8%	1.5%	1.9%	2.9%	4.2%	6.3%	2.3%	2.5%	2.3%
Delay Minutes (actual delay minutes)															MAT		
Passenger (1000s of minutes)	869.3	539.9	454.7	348.3	408.6	421.4	449.3	459.8	377.0	388.8	450.5	757.2	945.8	825.1	6,826.5	5,790.0	4,980.0
Freight (Normalised by per 100 train km)	8.41	4.59	4.78	3.81	2.82	4.07	3.58	3.80	3.41	3.25	3.72	4.65	7.89	6.90	4.35	3.41	2.94
Infrastructure															MAA		
Number of asset failures [r2]	3,135	3,216	3,159	2,809	3,107	3,088	3,037	3,047	2,735	2,779	2,775	2,911	3,052	2,568	2,945	N/A	N/A

GB data collected annually

Customer satisfaction	2008-09	2009-10	2010-11
TOC (mean satisfaction score)	3.09	3.35	Due in P13
FOC (mean satisfaction score)	2.93	2.95	Due in P13

Finance	2008-09	2009-10	2010-11
Adjusted Interest Cover Ratio	New measure	1.8	Due in P13
Expenditure (£m)	6,934	5,644	Due in P13
Controllable Opex	1,313	991	Due in P13
Maintenance	1,104	1,071	Due in P13
Renewals [r3]	3,139	2,304	Due in P13
Enhancements [r3]	1,378	1,278	Due in P13

Station Stewardship	2008-09	2009-10	2010-11	Regulatory target
Category A	2.33	2.28	Due in P13	2.48
Category B	2.42	2.4	Due in P13	2.60
Category C	2.49	2.47	Due in P13	2.65
Category D	2.53	2.53	Due in P13	2.69
Category E	2.54	2.52	Due in P13	2.74
Category F	2.54	2.54	Due in P13	2.71

Data source: Network Rail

- In this Monitor, Q3 refers to periods 8-10, 17 October 2010 - 8 January 2011
- Historical delay minutes maybe refreshed due to dispute resolution proccess
- Delay data does not include incidents affecting non-PfPI trains
- MAA is "Moving Annual Average"
- MAT is "Moving Annual Total"
- SSM (Station Stewardship Measure) is a new regulated output for CP4. The measure represents the remaining life of all measured station assets on a scale of 1 to 5. A new asset would achieve a score of 1 and an asset that is at the end of its life, so needs replacing, would score 5.
- Customer Satisfaction is measured on a 5-point scale; 1 being most negative, 5 being the most positive.

r1 PPM and CaSL figures have been revised so they align with regulated outputs for the current control period and include open access operators.
r2 Asset Failure figures have been updated to reflect mapping code changes and a data refresh following dispute resolution process.
r3 Revised to reflect final figures.
r4 PDI-P figures have been revised due to refresh.
r5 FPM is a new measure showing freight performance, measured by the percentage of trains arriving on time at their final destination, timed to 10 minutes. The national level MAA figures may differ slightly from the numbers published by ORR in the National Rail Trends as the two publications cover slightly different FOC operators.

Scotland

	2009/10				2010-11										End of Q3	Regulatory targets	
	P10	P11	P12	P13	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10		End of 2010-11	End of CP4
Network availability															MAA		
Passenger Disruption Index (PDI-P) [r4]	0.00	0.43	0.48	0.30	0.07	1.54	0.12	0.72	1.17	0.27	0.14	0.60	0.10	0.07	0.46	N/A	N/A
Train performance															MAA		
PPM [r1]																	
First ScotRail	71.9%	90.0%	91.0%	92.5%	94.0%	94.8%	94.7%	94.8%	95.0%	94.1%	93.6%	86.9%	72.1%	74.0%	90.3%	91.3%	92.0%
Delay minutes (actual delay minutes)															MAT		
Passenger (1000s of minutes)	94.5	41.5	46.2	36.3	30.3	27.7	23.4	26.0	22.5	24.9	26.9	48.7	130.7	71.5	556.6	410	382
CaSL															MAA		
First ScotRail	11.0%	2.3%	2.2%	2.0%	1.7%	1.2%	1.2%	1.4%	1.0%	1.2%	1.6%	2.0%	10.3%	8.1%	2.6%	N/A	N/A
Infrastructure															MAA	MAA	
Number of asset failures (NR Scotland Route) [r2]	347	332	375	275	332	353	325	284	256	319	269	266	221	263	298	N/A	N/A

Scotland data collected annually

Customer satisfaction	2008-09	2009-10	2010-11
TOC (mean satisfaction score)	3	2.78	Due in P13

Finance	2008-09	2009-10	2010-11
Expenditure (£m)	608	591	Due in P13
Controllable Opex [r3]	112	95	Due in P13
Maintenance	98	92	Due in P13
Renewals	290	226	Due in P13
Enhancements [r3]	108	178	Due in P13

Station Stewardship	2008-09	2009-10	2010-11	Regulatory target
All Stations	2.23	2.24	Due in P13	2.39

Data source: Network Rail

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Network Rail monitor
Quarter 3 of Year 2 of CP4, 17 October 2010 - 8 January 2011