Network Rail monitor
Q4 2007- 08
6 January - 31 March 08

OFFICE OF RAIL REGULATION

Network Rail monitor – Executive brief

For the second quarter in a row train punctuality is at a ten year high

- The network wide public performance measure (PPM) was again at its highest level since 1998-99.
- After struggling to achieve its targets in 2006-07, Network Rail's delay to all services fell by 10.0% over the year, to 9.5 million minutes.
- There were further reductions in passenger delay minutes over the year; Network Rail's fell by 8.8% and train operators' fell by 16.5%.
- Network Rail delays to freight fell by 15.7% over the year, although this is partly explained by a 10% reduction in freight miles. Despite this improvement, Network Rail missed its internal stretch targets for normalised freight delays throughout the year.

Reduction in number of asset failures

- For more than a year we have been challenging Network Rail about the level of asset failures causing delay to train services and the company has been working positively on a number of fronts to address the problem.
- Last year, Network Rail achieved the lowest annual total of infrastructure delay incidents for eight years.
- Incidents last year were 10% down on the year before, with significant reductions in track faults (which cause more delay than any other infrastructure category), points failures and track circuit failures. These three categories account for 48% of all infrastructure caused delay.

Financial efficiency over the past year below ORR target

- Based on preliminary cost data for 2007-08, Network Rail underperformed on operating, maintenance and renewals (OM&R) efficiency. The extent of the underperformance depends on the definition of unit costs used. However, the data suggests that at a minimum, Network Rail underperformed the 2007-08 OM&R efficiency target by 6%, leaving the company at least 0.5% behind the OM&R target for CP3 to date.
- Network Rail continued to outperform its efficiency target for operating costs and broadly achieved the efficiency target for maintenance in 2007-08. However, the preliminary data reveals a significant rise in renewals unit costs in the year.

Deterioration in Network Rail's customer satisfaction

- Network Rail's latest survey of its customers revealed a deterioration in satisfaction with the company's performance.
- Network Rail's customers believe that the company handles the customer interface well through effective account management but that it remains too bureaucratic and slow to respond to their needs. We have emphasised the importance of this measure to Network Rail and are pleased that it has confirmed that it will include this in its management incentive plan from 2009-10.
- We have had a number of complaints from those wishing to invest in the railway that they find it difficult doing business with Network Rail and that it takes too long for it to deliver small enhancement schemes. We are investigating further to establish the nature and extent of the problems and whether regulatory intervention is required.

Enforcement and scrutiny

We are monitoring the following issues particularly closely. The first two are subject to enforcement action; the remainder are under special scrutiny.

West Coast mainline project delivery

- Network Rail submitted a revised plan to us following consultation with its stakeholders. Its plan of 31 March includes additional possessions but maintains the previous timescales.
- We reviewed Network Rail's plan with the independent reporter, and concluded that the plan is achievable.
- We are also pressing Network Rail to mitigate the effect of engineering work in 2008-09 on both passenger and freight operators and to demonstrate that the infrastructure is reliable and able to support the introduction of the new timetable in December 2008.

Network Rail's planning and execution of engineering projects requiring possessions

- Network Rail is failing to manage major engineering work consistently well. This is particularly due to weaknesses in planning, risk assessment, site management of projects and the failure to communicate effectively within the company and with train operators.
- We made an enforcement order requiring Network Rail to address these weaknesses by the end of December 2008. Network Rail must produce a plan by 30 June to address the areas of concern we identified and must consult with its customers and funders. We will review the plan and will audit Network Rail's actions using the independent reporter.

Western route performance

- First Great Western performance remained poor throughout the year, with PPM stuck around 83%. A significant contributory factor was the continuing high levels of delay caused by Network Rail. This was down just 3% year-on-year and exceeded the Joint performance improvement plan (JPIP) target by over 20%. Even allowing for the exceptional flooding problems in the summer this was a disappointing outcome and we came close to making a formal licence breach investigation before signs of improvement began to come through late in the year.
- The JPIP for 2008-09 has been agreed and was presented to ORR and other key stakeholders in March. It projects an improvement in PPM to 86% for the year as a whole, which is an essential first step to matching the performance seen elsewhere on the network.

Network Rail not meeting performance targets for Southern and National Express East Coast (NEEC)

- Network Rail's Sussex route suffered a succession of major incidents over the year; Southern the most affected operator, formally raised this with the ORR.
- We called a joint meeting with Network Rail and Southern at which actions to improve performance were discussed. We will keep matters closely under review in the first three periods of 2008-09.
- Over the last year Network Rail experienced a significant number of problems on the East Coast main line, largely associated with the overhead electrification equipment.
- The operator (initially GNER and subsequently NEEC), drew ORR's attention to the matter but did not request formal intervention during 2007-08.
- NEEC has not agreed a JPIP or, more importantly, a specific target trajectory for 2008-09 with Network Rail and has advised us that it will make a formal submission shortly.

Introduction

This is the Q4 2007–08 Network Rail monitor. We have taken the opportunity to present additional data and commentary to provide a fuller picture of Network Rail's performance in the year, where information is readily available. As in previous years, we will provide a much more detailed and comprehensive analysis in our annual assessment of 2007–08, to be published in September 2008.

Additional data included in this publication is as follows:

- safety risk – major precursor groups within the PIM
- passenger train performance – PPM by sector
- Network Rail delay performance – by period
- Network Rail delay minutes – by category
- Network Rail delay minutes – by route
- asset failures, comparison of number of incidents, delay minutes by category
- efficiency
- summary of financial performance.

Data in the monitor is unaudited and therefore subject to review. The annual assessment will be based on audited data, provided by Network Rail in its annual return and regulatory accounts.

Network Rail's cooperation in providing additional information is appreciated.

Feedback

We welcome feedback on the content and format of this publication. If you have any comments, please contact Alan Hayden-Case on 020 7282 3861 or alan.hayden-case@orr.gsi.gov.uk

Contents

1. Great Britain

Summary data (Great Britain) Q4 2007-08 (6 January - 31 March 2008)

Key performance indicators (KPIs)		2006-07	2007-08				2007-08
		Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Year end actual
							Year end target
1 - Safety risk	Actual	48.7	49.2	50.4	47.9	n/av	n/app
RSSB train accident precursor measure (composite)	Previous year's actual	53.1	48.0	46.9	46.7	n/av	n/app
2 - Passenger train performance	Actual at end of quarter	88.1	88.2	88.7	89.3	89.9	89.9
Public performance measure (PPM) (MAA) (%)	Industry target	87.6	88.1	88.3	88.9	89.5	89.5
3 - Network Rail delay minutes	Year to date actual	10.5	2.1	4.3	7.4	9.5	9.5
Number of delay minutes (millions) attributed to Network Rail	ORR target	10.6	2.1	4.4	7.6	9.8	9.8
4 (a) – Delays to passenger trains	Normalised for the quarter	2.00	1.65	1.73	1.91	1.63	1.73
Network Rail delay minutes to Train operating companies per 100 train km	ORR derived target	1.86	1.70	1.85	1.94	1.70	*1.80*
4 (b) – Delays to freight trains	Normalised for the quarter	4.67	3.99	4.76	4.26	4.31	4.32
Network Rail delay minutes to Freight operating companies per 100 train km	Network Rail target	*n/av*	*3.52*	*3.93*	*4.13*	*3.76*	*3.90*
5 - Asset failures	Actual 4-weekly average	4,576	4,370	4,150	3,801	3,904	52,477
Number of infrastructure incidents	Previous year's actual	4,077	4,410	4,654	4,327	4,576	*52,293*
6 - Asset stewardship index (ASI)	Actual	0.72	0.70	0.69	0.66	0.63	0.63
Composite of seven asset condition measures	Network Rail target	*0.78*	*0.72*	*0.71*	*0.71*	*0.70*	*0.70*
7 - Activity volumes (track renewals only)	Actual cumulative	98.9	104.9	99.1	97.6	97.1	97.1
% Activity compared with plan	Network Rail target	*100*	*100*	*100*	*100*	*100*	*100*
8 (a) - Expenditure (OMR)	Year to date actual	5,520	1,084	2,240	3,872	5,187	5,187
Operating, maintaining and renewing the network	Year to date budget	*5,769*	*1,171*	*2,423*	*4,161*	*5,611*	*5,611*
(£ millions)	Variance %	-4.3	-7.4	-7.6	-6.9	-7.6	
8 (b) - Expenditure (enhancements)	Year to date actual	389	127	261	481	743	743
Enhancing the network	Year to date budget	*590*	*154*	*341*	*555*	*749*	*749*
(£ millions)	Variance %	-34.1	-17.5	-23.5	-13.3	-0.8	
9 - Financing	Actual	73.5	69.7	68.9	68.6	69.4	69.4
Net debt to RAB (Regulatory asset base) ratio (%)	Network Rail budget	*78.3*	*70.5*	*70.0*	*70.2*	*72.4*	*72.4*
10 - Financial efficiency index (FEI)	Year to date actual	82.2	80.0	80.1	78.9	78.1	78.1
Adjusted cost of operations, maintenance and track renewals	Network Rail target	*81.5*	*80.5*	*79.6*	*78.5*	*77.9*	*77.9*
11 (a) - Customer satisfaction (TOC)	MORI survey	-0.14	-	-	-	-0.21	-0.21
Train operators' attitude to Network Rail)	MORI survey (previous year)	*-0.30*	-	-	-	*-0.14*	*-0.14*
11 (b) - Customer satisfaction (FOC)	MORI survey	0.00	-	-	-	-0.85	-0.85
Freight operators' attitude to Network Rail	MORI survey (previous year)	*-0.99*	-	-	-	*0.00*	*0.00*

See data note on page 31. Network Rail's own internal targets are in *italics*. See pages 33-34 for KPI definitions and development.

1. Great Britain

Key performance indicators (KPIs)		2006-07	2007-08				2007-08
		Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Year end actual
							Year end target
1 - Safety risk	Actual	**48.7**	**49.2**	**50.4**	**47.9**	**n/av**	**n/app**
RSSB train accident precursor measure (composite)	Previous year's actual	**53.1**	**48.0**	**46.9**	**46.7**	**n/av**	**n/app**

1 – Safety Risk

At the end of Q3 (December 2007), the RSSB's train accident precursor measure (PIM) showed an overall reduction in the level of the risk on the network from Q2, reversing the previous slightly upward trend. This reflected minor improvements in all risk groups except objects on the line, which showed a very small increase in risk.

Historically, the PIM has improved significantly from the reference point (of 100) established in March 2002, mainly due to the big reduction in risk from Signals passed at danger (SPADs) following the introduction of the Train protection warning system (TPWS). Other areas where concerted action by the industry has significantly reduced risk are public misuse of level crossings and objects on the line due to vandalism. The beneficial effects of TPWS have now been fully reflected in the calculation of the PIM and with no similar technical breakthroughs on the horizon, future improvements in the level of the PIM are likely to be more modest.

1. Great Britain

Major precursor groups

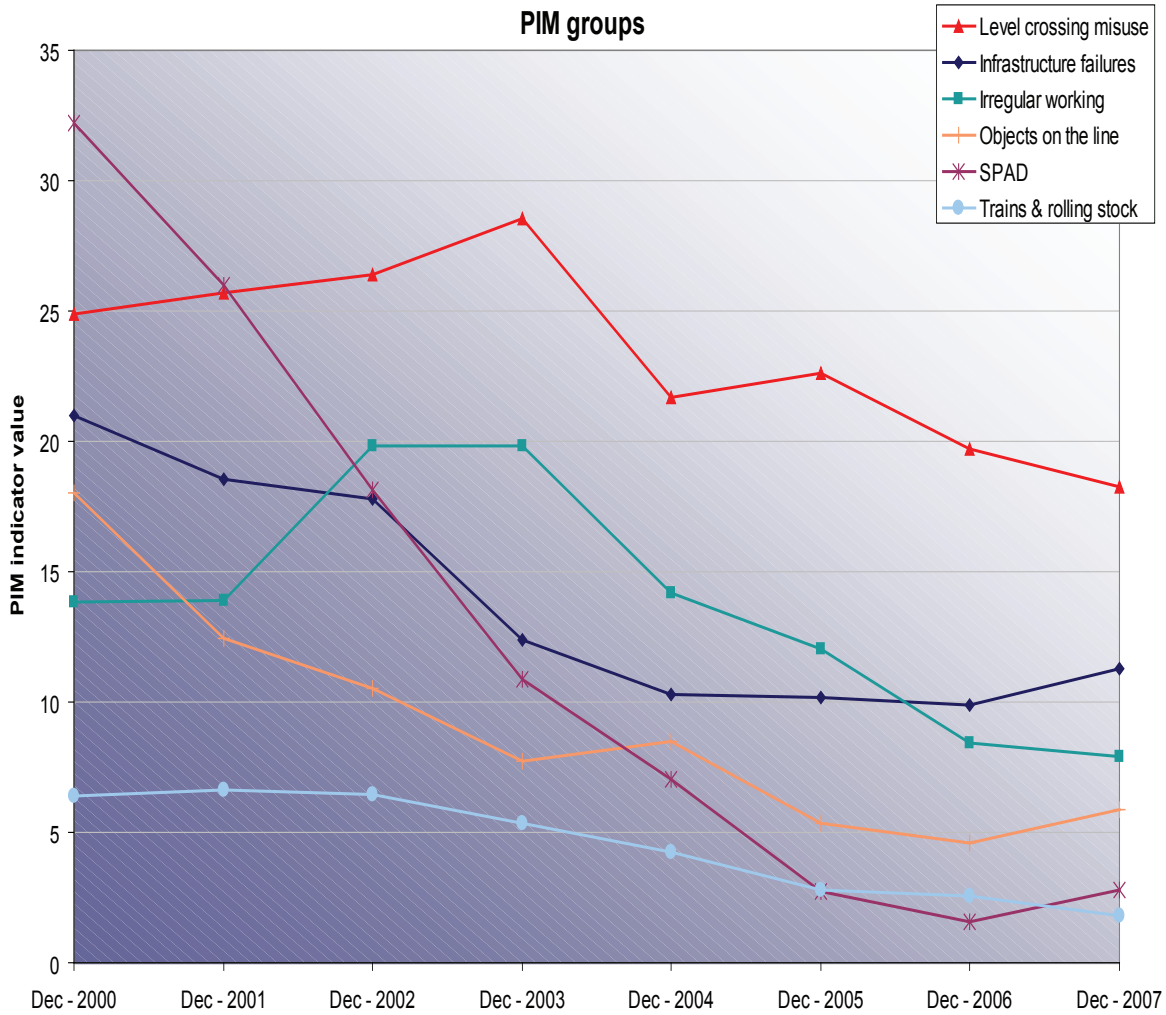
From Figure 1, we can see that between December 2006 and December 2007 risk increased for three of the six PIM risk groups - Infrastructure failures, SPADs and Objects on the line.

Infrastructure risk arising from track faults (such as broken and buckled rails and poor track geometry) decreased over the year, to less than half its 2002 level. Risk arising from poor adhesion, flooding and landslips, and from damage to structures (such as bridges, culverts, and overhead line electrification equipment) both increased. Both of these latter two risk sub-groups were at levels above the 2002 baseline. Unusually bad weather during early 2007, with five passenger trains being derailed by landslips or trees blown onto the line, was a significant cause of this increase in risk.

Now that the level of risk from SPADs is low this measure can be significantly affected by high-risk incidents such as near misses. During 2007 a collision between two passenger trains was only narrowly avoided in the SPADs at Didcot North Junction and at Lugton. The risk from Objects on the line was also affected by bad weather with an increase in the number of wind-blown objects.

ORR will continue to work closely with Network Rail to ensure that it identifies in good time changes to risk, such as that arising from extreme weather, and, where reasonably practicable, implements appropriate risk control and mitigation measures.

Figure 1



Data source: Rail Safety and Standards Board (RSSB), PIM data

1. Great Britain

Key performance indicators (KPIs)		2006-07	2007-08				2007-08
		Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Year end actual / Year end target
2 - Passenger train performance	Actual at end of quarter	**88.1**	**88.2**	**88.7**	**89.3**	**89.9**	**89.9**
Public performance measure (PPM) (MAA) (%)	Industry target	**87.6**	**88.1**	**88.3**	**88.9**	**89.5**	**89.5**

2 – Passenger train performance

(Franchised passenger operators only)

The public performance measure (PPM) at the end of Q4 was 89.9%, above the industry target of 89.5%, 1.8 percentage points higher than at the end of Q4 2006-07 and at its highest level since 1998-99.

The improvement was driven by a further reduction in train operators' delay minutes of 16.5% over the year and a reduction in Network Rail delay minutes of 8.8% over the year.

Winter

The rail industry had a generally successful winter. The impact of the weather was much less than in 2006-07, with no repeat of the massive storm in early 2007 and little effect from ice and snow. There was flooding and wind damage in some areas but the effects were generally well managed.

1. Great Britain

Passenger train performance by sector

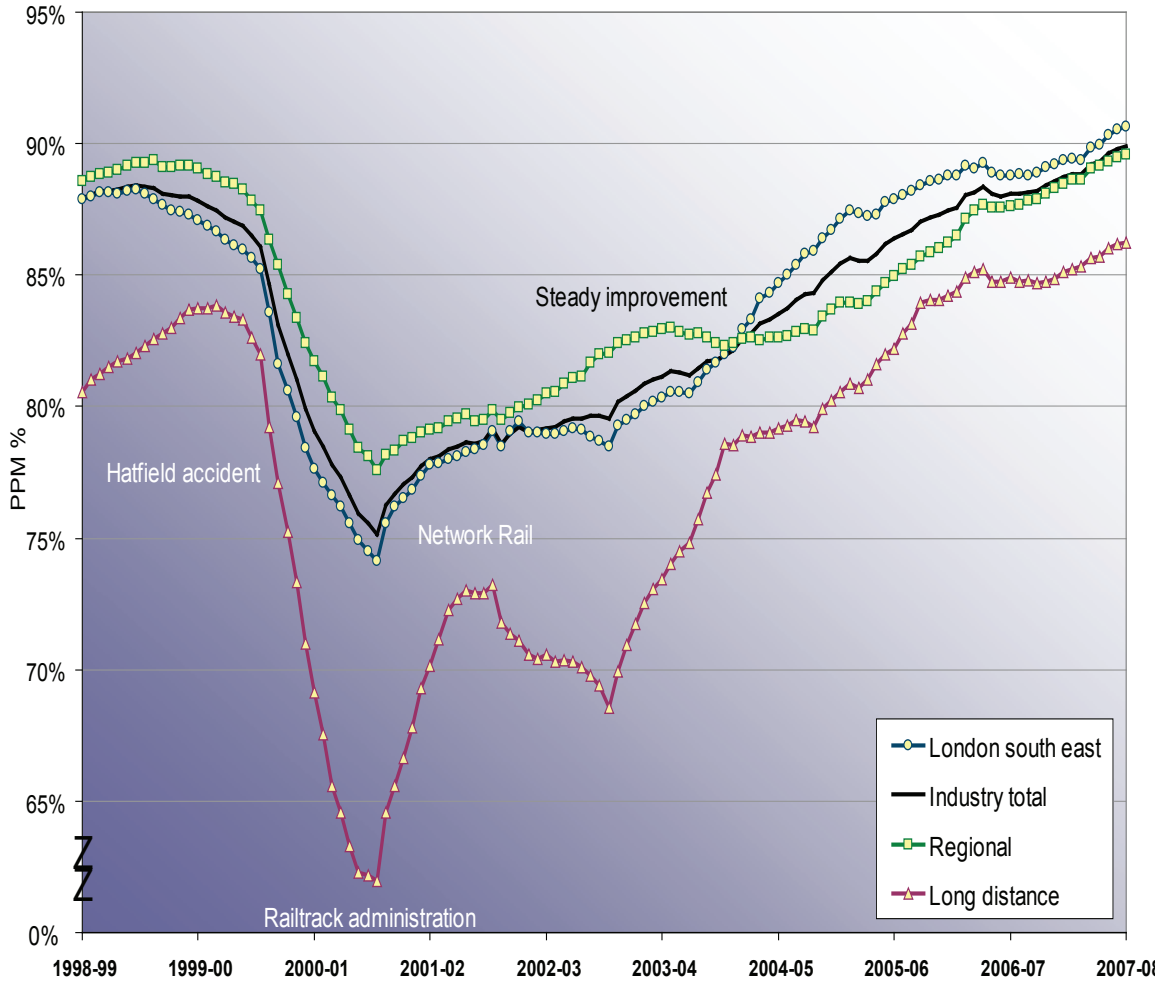
Figure 2 shows data for PPM over several years, split into the main business sectors. This shows clearly that at the end of 2007-08 each sector achieved its highest level for 10 years, with London and South East doing particularly well and still on a sustained improving trend. Regional services are also showing continued improvement. The Long distance sector is much smaller in terms of the number of trains run and has been held back by problems on First Great Western services and, to a lesser extent, by GNER and Virgin West Coast. Both of the latter operators are prone to days of serious disruption when a major incident affects the core route.

National Express East Coast

Network Rail had a significant number of problems on the East Coast main line, largely associated with the overhead electrification equipment. The operator - initially GNER and, after the franchise change, National Express East Coast (NEEC) - drew our attention to the matter but did not request formal intervention during 2007-08. However, NEEC has not agreed a Joint performance improvement plan (JPIP) and, most importantly, a specific target trajectory for 2008-09 with Network Rail. NEEC has advised us that it will make a formal submission shortly under the provisions of the network code, which governs the contractual arrangements between Network Rail and its customers.

Figure 2

PPM results by rail sector - MAA



Data source: Network Rail, Period performance report data

1. Great Britain

Western

First Great Western performance, including Network Rail delays, remained comparatively poor in relation to other operators in Q4 although there were some modest signs of improvement. PPM was stuck at 83%, with delay caused by Network Rail a major driver. This was down just 3% year-on-year and worse than the JPIP target by over 20%. This was a disappointing outcome, even allowing for exceptional flooding problems in the summer. The JPIP for 2008-09 has been agreed and was presented to ORR and other key stakeholders in March. It projects an improvement in PPM to 86% for the year as a whole, which is an essential first step to matching the performance seen elsewhere on the network.

We subsequently wrote to Network Rail, warning it that there must be an improvement in punctuality and reliability on its Western route. We want to see performance levels closer to those already enjoyed by passengers and freight customers on most other parts of the network. If JPIP targets for this route are not met in the near future, then Network Rail may be in breach of its network licence. We will be monitoring performance against JPIP targets very closely during 2008-09.

Southern

Network Rail's Sussex route had a relatively difficult year, with a succession of major incidents, and Southern, the operator affected, formally referred the matter to ORR. We called a joint meeting with Network Rail and Southern at which the steps being taken to improve performance were explained and we agreed to keep matters closely under review in 2008-09.

1. Great Britain

Key performance indicators (KPIs)		2006-07	2007-08				2007-08
		Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Year end actual / Year end target
3 - Network Rail delay minutes	Year to date actual	**10.5**	**2.1**	**4.3**	**7.4**	**9.5**	**9.5**
Number of delay minutes (millions) attributed to Network Rail	ORR target	**10.6**	**2.1**	**4.4**	**7.6**	**9.8**	**9.8**
4 (a) – Delays to passenger trains	Normalised for the quarter	**2.00**	**1.65**	**1.73**	**1.91**	**1.63**	**1.73**
Network Rail delay minutes to Train operating companies per 100 train km	ORR derived target	**1.86**	**1.70**	**1.85**	**1.94**	**1.70**	**1.80**
4 (b) – Delays to freight trains	Normalised for the quarter	**4.67**	**3.99**	**4.76**	**4.26**	**4.31**	**4.32**
Network Rail delay minutes to Freight operating companies per 100 train km	Network Rail target	***n/av***	***3.52***	***3.93***	***4.13***	***3.76***	***3.90***

3 – Network Rail delay minutes

(all train operators)

Network Rail delay to all services fell by 10.0% over the year, to 9.5 million minutes. This is higher than its business plan target of 9.1 million minutes, but lower than the ORR regulatory target of 9.8 million minutes set in 2003.

There were notable reductions in delay from electrified overhead line (OLE)/3rd rail failures, condition of track temporary speed restrictions (COT TSRs), signal failures and track circuit failures.

4 (a) and (b) – Delays to passenger/freight trains

Network Rail delay minutes for passenger trains, normalised by train kilometres run, were 4% better than our derived target but 5% worse than Network Rail's internal target. However, there was an improvement of 10% over the year.

For freight trains, delay per 100 train kilometres increased slightly from Q3 and performance was again worse than Network Rail's internal stretch target (as in Q1 and Q2). There appears to be a number of causes for this increase - the mix of freight traffic continues to change quite rapidly, particularly in the coal sector, and the continuing cable theft problem may be having a proportionately greater effect on freight services. We remain concerned about this area and have asked Network Rail for an explanation.

1. Great Britain

Network Rail delays

Figure 3 shows Network Rail's performance against the regulatory trajectory and Network Rail's internal stretch targets (which essentially aspire to deliver the ORR targets a year early). From a starting point at the end of 2006-07, when Network Rail ended the year almost exactly in line with the ORR target, the first part of the year saw difficulties largely due to major flooding across much of England. Following an effective autumn and winter performance, Network Rail ended the year comfortably below the trajectory. Traffic volumes in terms of train mileage operated remained almost static overall, within 1% of 2006-07.

Figure 4 provides a breakdown of delays by 4-week period and compares 2007-08 with 2006-07. This shows that all periods from period 5 (July) onwards saw improved delivery, with a significant share of the gain from much lower autumn and winter delays in periods 9 (November) and 11 (January) respectively.

Figure 3 CP3 delay minute targets and actual

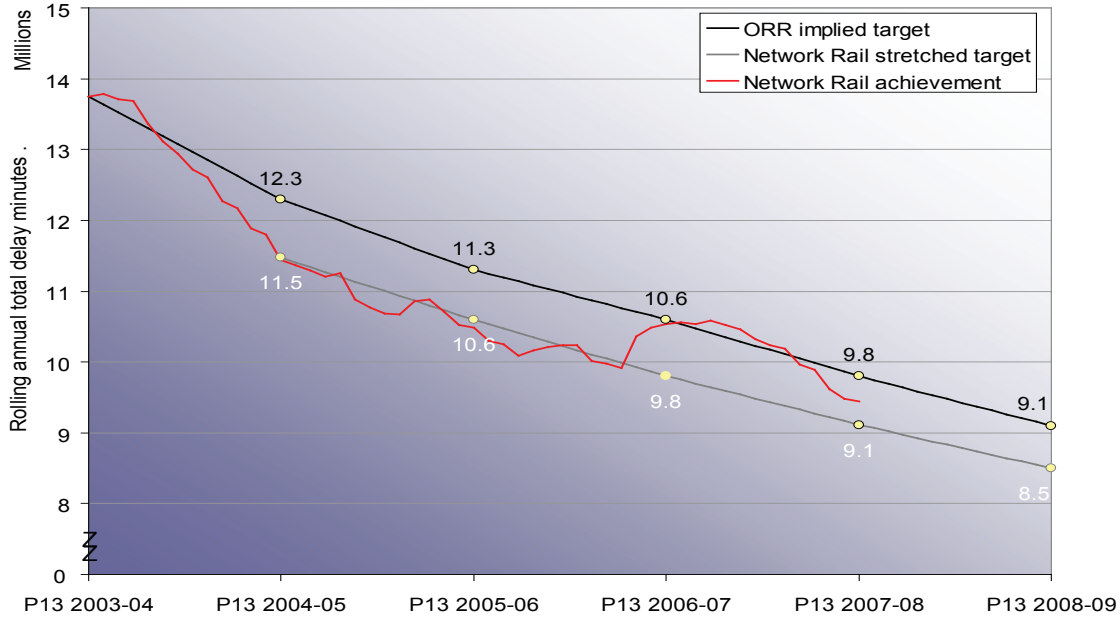
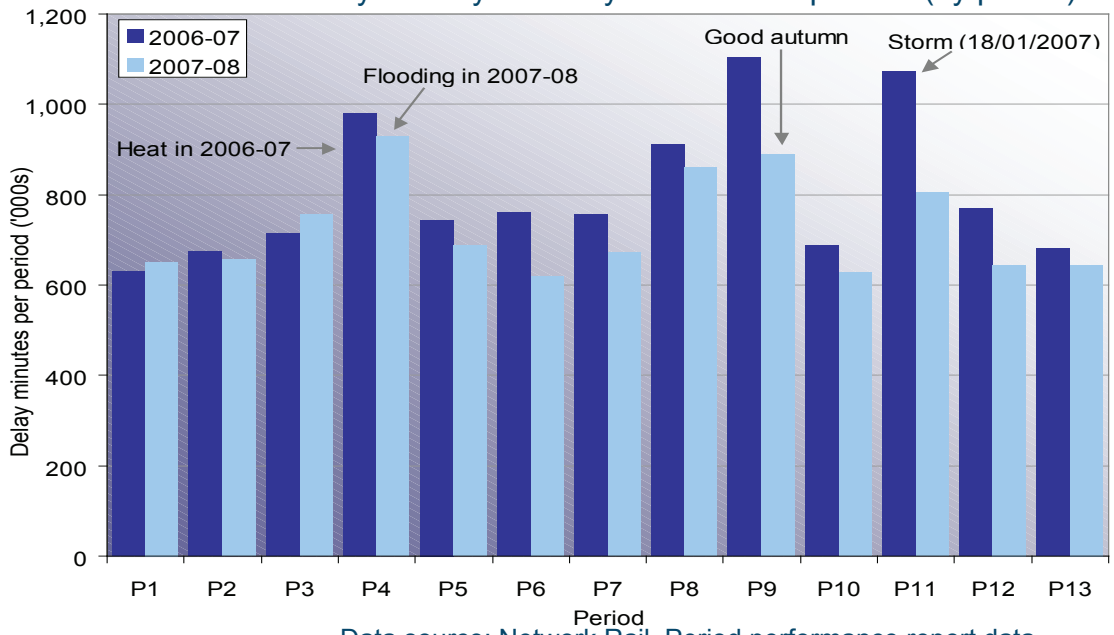


Figure 4 Network Rail year on year delay minutes comparison (by period)



Data source: Network Rail, Period performance report data

1. Great Britain

Network Rail delay minutes by category and by route

Figure 5 provides a breakdown of Network Rail delays into six main groupings (see page 32 for an explanation). Delays from the 'non-track assets' group and the 'track assets' group fell by 14% and 12% respectively. Delays from the 'management control' group also fell, but at a rather lower rate. Delays from external factors fell by 7%. Delays from the 'weather and structures' group fell by 14% following the more benign winter but were still well above the 2005-06 figure, mainly due to the summer flooding. The smallest group, 'autumn delays', has been a real success story over the last few years and is now nearing the point where 'leaves on the line' are no longer a major cause of delay, thanks to cross industry initiatives to tackle the problem.

Figure 6 shows the distribution of Network Rail delay minutes between the routes. All routes show a reduction over 2007-08.

Figure 5

Total annual delay minutes (by group) and percentage change on previous year

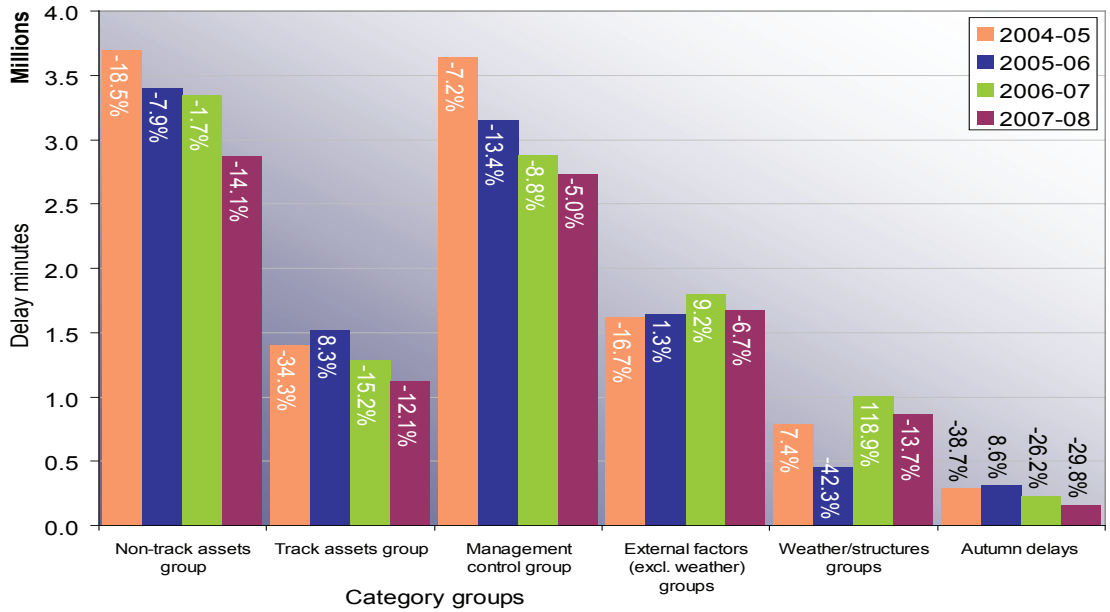
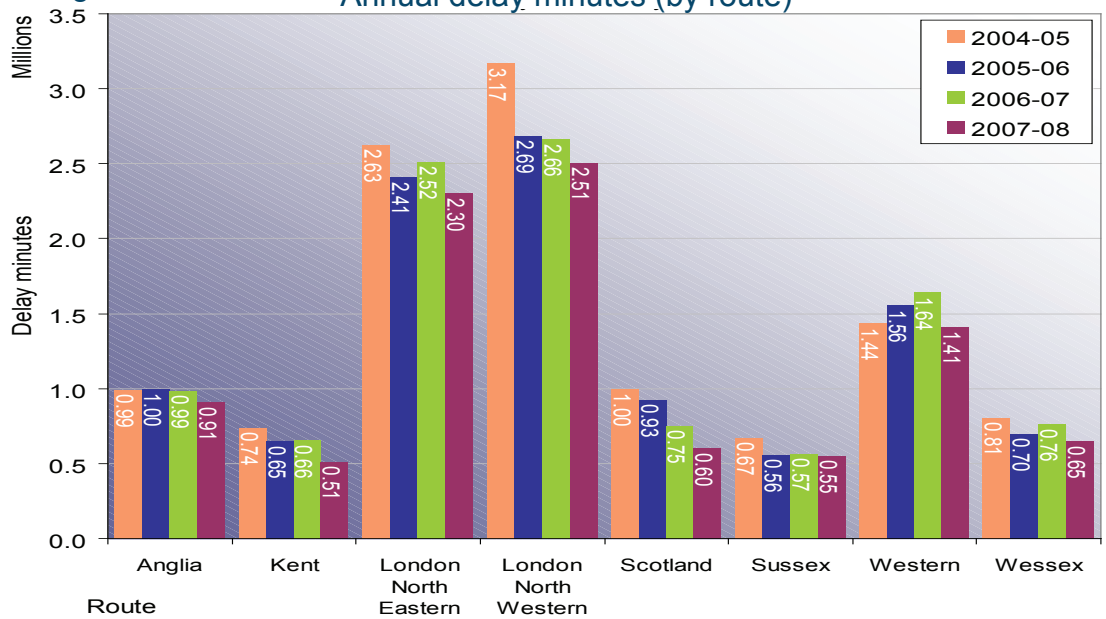


Figure 6

Annual delay minutes (by route)



Data source: Network Rail, Period performance report data

1. Great Britain

Key performance indicators (KPIs)		2006-07	2007-08				2007-08
		Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Year end actual
							Year end target
5 - Asset failures	Actual 4-weekly average	**4,576**	**4,370**	**4,150**	**3,801**	**3,904**	**52,477**
Number of infrastructure incidents	Previous year's actual	**4,077**	**4,410**	**4,654**	**4,327**	**4,576**	***52,293***

5 – Asset failures

For more than a year we have challenged Network Rail about the level of asset failures causing delay to services and the company has been working on a number of fronts to address the problem. There was real improvement in the year - the number of incidents fell by 10% and delay minutes to train services from infrastructure causes fell by 11%. The number of infrastructure incidents causing delay in the year was the lowest annual total for at least eight years.

Network Rail asset failure incidents by category

Figure 7 shows the distribution of infrastructure incidents causing delay, by cause, over the control period; Figure 8 shows the changes in delay arising from those incidents.

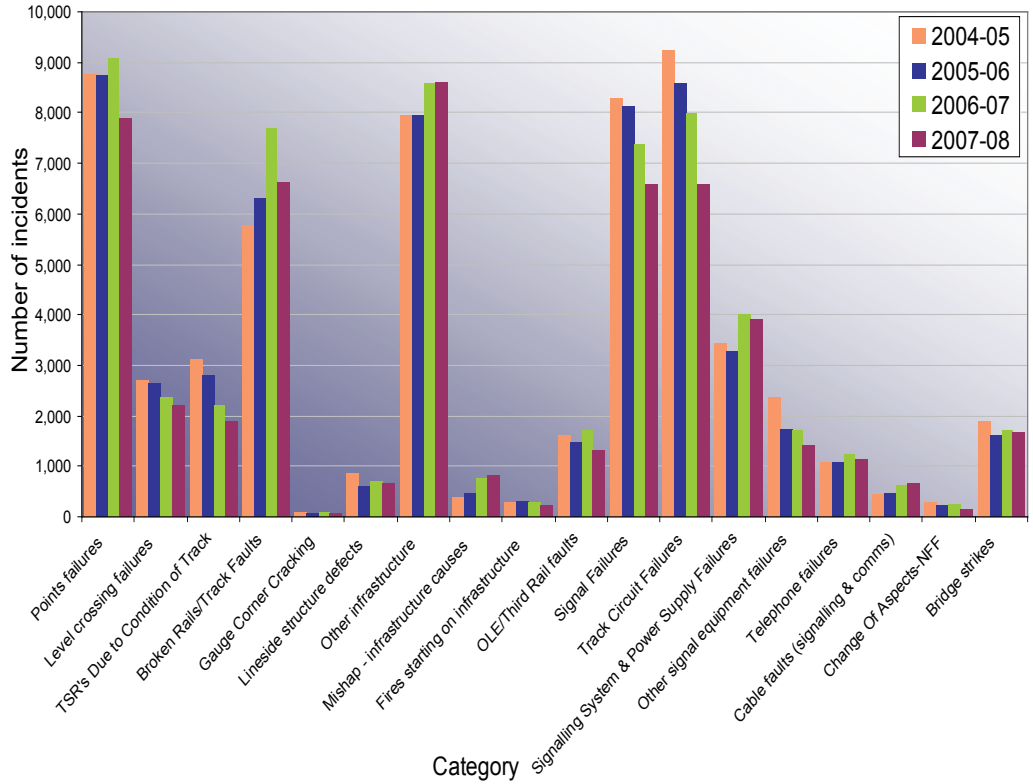
Track faults fell by 14% over the year. This is a welcome improvement, particularly as Network Rail previously found reductions elusive. As in previous years, track faults caused more delay minutes than any other infrastructure category - 17% of the total.

Points failures fell by 13% over the year. They accounted for almost 16% of delay minutes from infrastructure causes.

Track circuit failures fell by 17% over the year and were at the lowest level for at least eight years. They accounted for 15% of the delay minutes from infrastructure causes over the year.

Figure 7

Comparison of year on year national number of infrastructure incident causing delays



Data source: Network Rail, Period performance report data

1. Great Britain

The number of signalling power supply failures fell by 2% over the year. Network Rail has said that an apparent increase of 29% in the number of failures causing delay of more than 500 minutes is a consequence of changes to the way in which failures are coded – incidents previously described as signalling failures are now recorded as signalling power supply failures. We will monitor the data during 2008-09 to ensure that this is the case.

Although the number of electrification failures fell by 22% over the year, the total is still higher than in 2004-05. In Q4 there were three significant failures on the East Coast main line causing substantial delay and inconvenience. Network Rail has submitted plans for improving reliability of the overhead line equipment (OLE) on this route in its strategic business plan for implementation in CP4. Q4 also saw the start of work to replace the life expired OLE system on the Great Eastern main line out of London Liverpool Street station. This should progressively reduce the number of incidents on this busy commuter route.

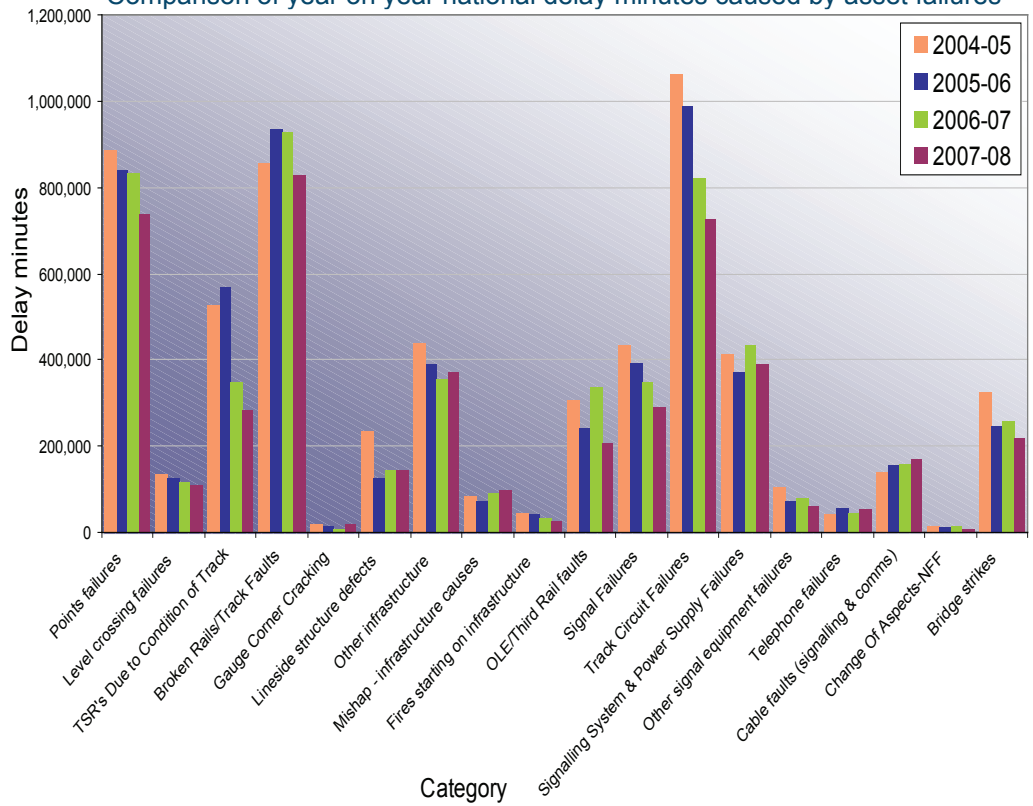
In the Q3 monitor we expressed concern over increases in 'other infrastructure failures' and 'infrastructure caused mishaps'. Network Rail investigated further and provided a more detailed analysis, which has improved our confidence in its management of these issues. The picture for the 'other' category improved in Q4, with the result that the increase in the year was 0.5%, but 'mishaps' were 12% higher than in 2006-07. It is acknowledged that these are volatile categories of delay and attribution is not always straightforward. There were issues of misallocation of incidents between different categories. We will continue to monitor in 2008-09 and expect to see improvements.

Rolling contact fatigue (RCF)

We have previously reported an increase in rail defects arising from the introduction of new rolling stock in southern England,

Figure 8

Comparison of year on year national delay minutes caused by asset failures



Data source: Network Rail, Period performance report data

caused in part by new heavier trains with stiffer suspensions. Incidents related to this problem can appear in any of three track related measures, including track faults noted above.

We have previously reported on a number of Network Rail initiatives, including joint action with the train operators and vehicle manufacturers, to mitigate this issue. Network Rail provided a further briefing in April and we shall report progress against key milestones in future monitors, to include: the effectiveness of a new predictive tool from May 2008; the testing of a new wheel profile across a single route over the next 18 months; and a study of the effectiveness of changes to track parameters to mitigate the impact of RCF later this year.

1. Great Britain

Key performance indicators (KPIs)		2006-07	2007-08				2007-08
		Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Year end actual / Year end target
6 - Asset stewardship index (ASI)	Actual	**0.72**	**0.70**	**0.69**	**0.66**	**0.63**	**0.63**
Composite of seven asset condition measures	Network Rail target	***0.78***	***0.72***	***0.71***	***0.71***	***0.70***	***0.70***
7 - Activity volumes (track renewals only)	Actual cumulative	**98.9**	**104.9**	**99.1**	**97.6**	**97.1**	**97.1**
% Activity compared with plan	Network Rail target	***100***	***100***	***100***	***100***	***100***	***100***

6 – Asset stewardship index (ASI)

The ASI continues to outperform the ACR2003 target and Network Rail's own internal stretch target. This performance is replicated in all the territories with the corresponding ASI-R measure. The year ended with an ASI of 0.635, 10% better than Network Rail's period target of 0.70 and 12% lower than in 2006-07.

7 – Activity volumes (track renewals only)

Track renewals

Network Rail renewed[1] 2,491 km of plain line track in the year compared to a planned output of 2,565 km, continuing the high output achieved in 2006-07. This is a composite measure, comprising rails, sleepers and ballast. The shortfall of 3% against target does not cause any significant concern.

Switch and crossing renewals

Network Rail renewed[1] 468 switch and crossing units compared with a planned output of 493 units, a further increase on the high output achieved in 2006-07. However the actual achievement is a shortfall of more than 5% against the planned target. Network Rail has said this was primarily to achieve efficiencies or to re-allocate resources to more critical West Coast route modernisation (WCRM) work.

1 Excludes West Coast route modernisation

1. Great Britain

Key performance indicators (KPIs)		2006-07	2007-08			
		Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
8 (a) - Expenditure (OMR)	Year to date actual	**5,520**	**1,084**	**2,240**	**3,872**	**5,187**
Operating, maintaining and renewing the network	Year to date budget	***5,769***	***1,171***	***2,423***	***4,161***	***5,611***
(£ millions)	Variance %	**-4.3**	**-7.4**	**-7.6**	**-6.9**	**-7.6**
8 (b) - Expenditure (enhancements)	Year to date actual	**389**	**127**	**261**	**481**	**743**
Enhancing the network	Year to date budget	***590***	***154***	***341***	***555***	***749***
(£ millions)	Variance %	**-34.1**	**-17.5**	**-23.5**	**-13.3**	**-0.8**

2007-08
Year end actual
Year end target
5,187
5,611
743
749

8 – Expenditure variance

Comparison to budget

Total expenditure was £67 million (4%) below budget in Q4 and £430 million (7%) below budget for the year. Network Rail's reasons for the full-year variance are:

- £379 million (12%) below budget on renewals, reflecting a deferral of £277 million of expenditure into future years and a £100 million reduction in contingency;
- £31 million (9%) below budget on non-controllable costs due to a £7 million release of provisions and the budget being cautious;
- £18 million (2%) below budget on maintenance due to additional efficiency savings;
- £6 million (1%) below budget on enhancement expenditure; and
- £4 million (0.5%) above budget on controllable opex.

Full year total expenditure is £90 million lower than forecast in Q3 largely due to a further £95 million deferral of renewals. This underspend confirms the issues we had over Network Rail's Q3 forecast. Network Rail did manage to catch up spend on enhancements in Q4.

Full year total expenditure in 2007-08 (in real terms) was £632 million above the ACR2003 determination. This was largely as a result of additional expenditure of £465 million on enhancements made up of over £350 million on additional projects and £121 million on the West Coast route modernisation project (WCRM). There was also £171 million of additional spend on WCRM renewals. The additional spend on WCRM has been driven by the costs of access to the railway and the detailed development and subsequent implementation of the work required to support and sustain the improvements associated with the December 2008 timetable. The increased expenditure over the year partly reverses underspend in previous years.

Full year total expenditure in 2007-08 (in real terms) was £145 million more than in 2006-07 largely due to increased spend of £299 million on enhancements made up of the change in scope on WCRM (£68 million), the ramping-up of work on Thameslink (£46 million), the St Pancras Box project (£72 million) and increased spend on Network Rail discretionary fund (NRDF) schemes (£51 million). The increase in enhancements expenditure was offset by additional efficiencies made in controllable costs (£80 million on maintenance, £42 million on controllable opex and £47 million on non-controllable opex).

1. Great Britain

Key performance indicators (KPIs)		2006-07	2007-08				2007-08
		Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Year end actual / Year end target
9 - Financing	Actual	**73.5**	**69.7**	**68.9**	**68.6**	**69.4**	**69.4**
Net debt to RAB (Regulatory asset base) ratio (%)	Network Rail budget	***78.3***	***70.5***	***70.0***	***70.2***	***72.4***	***72.4***
10 - Financial efficiency index (FEI)	Year to date actual	**82.2**	**80.0**	**80.1**	**78.9**	**78.1**	**78.1**
Adjusted cost of operations, maintenance and track renewals	Network Rail target	***81.5***	***80.5***	***79.6***	***78.5***	***77.9***	***77.9***

9 – Financing (Net debt to RAB ratio)

At the end of Q4 Network Rail's gearing (net debt to RAB ratio) of 69.4% was within the regulatory limit and below its budget. According to Network Rail, this is due to:

- Net debt being £807 million lower than budget largely as a result of:
  - lower spending on renewals described above (£379 million);
  - the release of a £100 million cashflow contingency (in addition to the reduction of £100 million in renewals contingency);
  - lower net interest costs of £93 million and an improved timing of interest payments of £87 million giving lower net interest cash costs of £180 million; and
  - an improved year-end creditor position of £94 million.
- The RAB being £68 million higher than budget, due to Network Rail's estimate for inflation being higher than expected.

Net debt at the end of Q4 was £47 million lower than the Q3 forecast, largely due to lower net interest cash flows, further deferral of renewals partly offset by increased enhancements.

10 – Financial efficiency index (FEI)

According to Network Rail, at the end of Q4 efficiency was worse than the FEI target due to track renewals unit costs being higher than budget, partially offset by savings in maintenance and controllable opex. Network Rail was forecasting at the end of Q3 to achieve the target but the anticipated risks and opportunities that would allow it to do so did not materialise.

Note:

From Q1 2007-08, the method of calculating the FEI has been revised (see definition section for details). The 2006-07 Q4 number has been restated to be consistent with the revised methodology.

1. Great Britain

Efficiency (Non-WCRM expenditure)

This section reports on our initial assessment of Network Rail's efficiency performance for the year 2007-08, and for the control period (CP3) to date. Our assessment is based partially on the preliminary analysis of one the independent reporters and partially on our analysis of Network Rail period 13 data, which is also preliminary. The data may therefore be subject to change.

We will carry out our full analysis of Network Rail's 2007-08 efficiency performance once the audited data is available. We will publish the results of this in our annual assessment of Network Rail's performance.

Overview

Based on the preliminary data, Network Rail continued to outperform its efficiency target for operating costs and broadly achieved that for maintenance in 2007-08. However, the preliminary data reveals a significant rise in renewals unit costs in the year which, if confirmed by the audited data, will mean that Network Rail has underperformed on operating, maintenance and renewals (OMR) efficiency overall. The extent of the underperformance depends on the definition of unit costs used. However, the unit cost data suggests that, at a minimum, Network Rail underperformed against the 2007-08 OMR efficiency target by 6%, leaving the company at least 0.5% behind the target for CP3 to date. [2]

We have compared this emerging picture on efficiency with the movement in the Financial efficiency index (FEI) over the year. We understand that the FEI for 2007-08 is likely to be below target. We therefore believe that the FEI is likely to understate the extent of Network Rail's underperformance on OMR efficiency in 2007-08.

Controllable OPEX

On controllable operational expenditure (OPEX), Network Rail was again ahead of its regulatory efficiency target for the control period to date (by 12%), realising a 4% outperformance of the 5% target in 2007-08.

Maintenance

Network Rail's maintenance expenditure per equated track mile (ETM)[3] is around 4% ahead of the 28% target for the control period to date. For 2007-08 the company was broadly in line with the 8% target implied by the ACR2003 determination.

Renewals

There is no straightforward methodology for assessing Network Rail's performance on renewals efficiency. The unit costs data available provides only a partial picture of the efficiency of its renewals activity. Therefore, in assessing renewals efficiency we consider both unit cost data and the company's own analysis of the variance of its expenditure relative to budget.

At least two years of preliminary unit cost data is available for 39 individual track, structures, signalling and telecoms work activities. Overall performance on renewals depends on the definition of unit costs used. However, based on the preliminary data, if the efficiency performance observed in these areas is representative of the performance across renewals expenditure as a whole, then there was a reduction in renewals unit cost efficiency of at least 8% in 2007-08, meaning that some of the gains achieved by the company in the first three years of the control period have been reversed. The preliminary data

2 ACR2003 assumed that Network Rail would be able to make total OM&R unit cost efficiencies of 31 percent over CP3. The annual efficiency assumptions for 2007–08 were 8% for maintenance and 5% for controllable OPEX and renewals

3 The ETM metric is based on the amount of expected activity necessary to maintain the network to a certain standard

suggests unit cost increases for all asset classes reported except structures, compared to a regulatory target of a 5% reduction. The figures imply this is now at least 8% behind the ACR2003 determination, on a cumulative basis.

Network Rail's own variance analysis suggests that activity efficiency fell by around 1% on average for 2007-08. Again, most asset categories appear to have underperformed.

We therefore conclude that, in 2007-08, Network Rail reversed part of the efficiency savings achieved on renewals earlier in the control period and its efficiency is materially below the cumulative target for CP3 to date.

Summary of financial performance

Table 1 shows that income in 2007-08 was £9 million (0.2%) higher than budget. According to Network Rail this was mainly as a result of out-performance in schedule 4 income due to better possession planning. The higher schedule 4 payments as a result of poor performance following the engineering overruns and the flooding that took place in the early part of the year were either recovered to projects or were insured against.

Expenditure variances are explained on page 18. GB regulatory asset base (RAB)[4] variance and net debt variance are explained on page 19.

Table 1 **Summary of Network Rail's financial performance**

£ millions	2007-08			
	Full year actual	Full year budget	Variance £ millions	Variance %
Total income	5,960	5,951	9	0.2%
Expenditure				
Operating costs				
- Controllable operating costs	873	869	4	0.5%
- Non-controllable costs	302	333	(31)	-9.3%
- Total operating costs	1,175	1,202	(27)	-2.2%
Maintenance	1,118	1,136	(18)	-1.6%
Renewals				
- Non WCRM	2,534	2,841	(307)	-10.8%
- WCRM	360	364	(4)	-1.1%
- Total renewals	2,894	3,273	(379)	-11.6%
Enhancements	743	749	(6)	-0.8%
Total Expenditure	5,930	6,360	(430)	-6.8%
GB RAB	27,942	27,874	68	0.2%
Net debt	(19,381)	(20,188)	807	4.0%
Movement in debt	(809)	(1,616)	807	49.9%

4 The RAB included in the monitor is Network Rail's estimate of the RAB and is adjusted by Network Rail on a yearly basis for inflation. As part of work for the 2008 periodic review, ORR will determine the roll forward of Network's Rail RAB from 1 April 2004.

1. Great Britain

Key performance indicators (KPIs)		2006-07	2007-08				2007-08
		Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Year end actual
							Year end target
11 (a) - Customer satisfaction (TOC)	MORI survey	**-0.14**	-	-	-	**-0.21**	**-0.21**
Train operators' attitude to Network Rail)	MORI survey (previous year)	***-0.30***	-	-	-	***-0.14***	***-0.14***
11 (b) - Customer satisfaction (FOC)	MORI survey	**0.00**	-	-	-	**-0.85**	**-0.85**
Freight operators' attitude to Network Rail	MORI survey (previous year)	***-0.99***	-	-	-	***0.00***	***0.00***

11 – Network Rail customer satisfaction

Network Rail's latest customer satisfaction survey shows that the attitude of train operating companies (TOCs) and freight operating companies (FOCs) towards Network Rail deteriorated from the previous survey (autumn 2006).

The research was based on telephone surveys with 236 managers and directors, carried out between 15 October and 30 November 2007.

One of the measures that Network Rail uses to assess the satisfaction of its customers (TOCs, FOCs and owning groups) and suppliers is the advocacy measure:

"Which describes how you best feel about Network Rail?

- I would be critical without being asked (-2)
- I would be critical if someone asked my opinion (-1)
- I would be neutral if someone asked my opinion (0)
- I would speak highly if someone asked my opinion (+1)
- I would speak highly without being asked (+2)"

TOC satisfaction fell back slightly, whereas FOC satisfaction fell back more significantly.

Below the top level numbers, the highest ratings were for 'understanding customers' needs', 'personal working relationships' and 'values relationship' and the lowest ratings were for 'integrated', 'decision involvement' and 'flexible'. This data is supplemented by numerous verbatim comments that indicate that operators feel:

- Network Rail is too bureaucratic and slow in decision making;
- that freight companies do not believe that they are treated equally in Network Rail's decision making process; and
- Network Rail is overly hierarchical in structure.

However, more positively, the way that Network Rail handled autumn delays was complimented and the work of dedicated groups at route level is appreciated.

We conclude from the survey that the work that Network Rail has done to ensure that customer relationships are effectively managed (through the Customer service improvement plan - CSIP) has had an effect, but that it needs to do more to speed up decision-making and reduce bureaucracy.

2. England and Wales

Summary data (England and Wales) Q4 2007-08 (6 January - 31 March 2008)

Key performance indicators (KPIs)		2006-07	2007-08				2007-08
		Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Year end actual
							Year end target
2 - Passenger train performance	Actual at end of quarter	88.0	89.2	89.6	89.8	89.8	89.8
PPM MAA (%)	Industry target	87.6	88.0	88.3	88.9	89.4	89.4
3 - Network Rail delay minutes	Year to date actual	9.8	1.9	4.1	7.0	9.0	9.0
Number of delay minutes (millions) attributed to Network Rail	ORR derived target	9.7	2.0	4.1	7.0	9.0	9.0
5 - Asset failures	Actual 4-weekly average	4,151	3,943	3,811	3,456	3,510	47,618
Number of infrastructure incidents	Previous year's actual	3,696	3,983	4,244	3,901	4,151	*47,323*
6 - Asset stewardship index (ASI-R)	Year to date	0.66	0.63	0.63	0.60	0.57	0.57
Composite of seven asset condition measures	Network Rail target	*0.71*	*n/av*	*0.64*	*0.64*	*0.62*	*0.62*
7 - Activity volumes (track renewals only)	Actual cumulative	98.3	104.7	98.9	97.5	97.2	97.2
% Activity compared with plan	Network Rail target	*100*	*100*	*100*	*100*	*100*	*100*
8 (a) - Expenditure (OMR)	Year to date actual	4,989	990	2,037	3,517	4,705	4,705
Operating, maintaining and renewing the network	Year to date budget	5,233	1,059	2,188	3,759	5,058	5,058
(£ millions)	Variance %	-4.7	-6.5	-6.9	-6.4	-7.0	
8 (b) - Expenditure (enhancements)	Year to date actual	369	124	254	466	719	719
Enhancing the network	Year to date budget	564	147	331	530	710	710
(£ millions)	Variance %	-34.6	-15.6	-23.3	-12.1	1.2	
10 - Financial efficiency index (FEI)	Year to date actual	82.7	80.4	80.3	78.9	78.4	78.4
Adjusted cost of operations, maintenance and track renewals	Network Rail target	*81.6*	*80.9*	*79.5*	*78.5*	*78.9*	*78.9*

See data note on page 31. Network Rail's own internal targets are in *italics*.
See pages 33-34 for KPI definitions and development.

3. Scotland

Summary data (Scotland) Q4 2007-08 (6 January - 31 March 2008)

Key performance indicators (KPIs)		2006-07	2007-08				2007-08
		Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Year end actual
							Year end target
2 - Passenger train performance	Actual at end of quarter	88.8	89.1	89.4	90.2	90.6	90.6
ScotRail PPM MAA (%)	Industry target	87.3	89.0	88.8	89.5	90.0	90.0
3 - Network Rail delay minutes (Scotland route)	Year to date actual	747.9	131.9	246.7	440.3	609.0	609.0
Number of delay minutes (thousands) attributed to Network Rail causes	ORR derived target	887.0	182.6	362.7	642.0	820.0	820.0
5 - Asset failures	Actual 4-weekly average	424	427	339	345	394	394
Number of infrastructure incidents	Previous year's actual	381	427	409	426	424	*424*
6 - Asset stewardship index (ASI-R)	Year to date	0.83	0.79	0.68	0.65	0.70	0.70
Composite of seven asset condition measures	Network Rail target	*0.92*	*0.86*	*0.85*	*0.91*	*0.97*	*0.97*
7 - Activity volumes (track renewals only)	Actual cumulative	104.8	108.1	101.2	98.6	96.1	96.1
% Activity compared with plan	Network Rail target	*100*	*100*	*100*	*100*	*100*	*100*
8 (a) - Expenditure (OMR)	Year to date actual	531.0	94.0	203.0	355.0	482.0	482
Operating, maintaining and renewing the network	Year to date budget	536.0	113.0	235.0	402.0	553.5	554
(£ millions)	Variance %	-0.9	-16.5	-13.7	-11.6	-12.9	
8 (b) - Expenditure (enhancements)	Year to date actual	20.0	3.0	7.0	15.0	23.9	24
Enhancing the network	Year to date budget	26.0	7.0	10.0	25.0	38.7	39
(£ millions)	Variance %	-23.1	-52.9	-30.0	-39.1	-38.2	
10 - Financial efficiency index (FEI)	Year to date actual	81.4	75.6	78.4	79.1	77.3	77.3
Adjusted cost of operations, maintenance and track renewals	Network Rail target	*81.1*	*78.2*	*77.8*	*77.8*	*77.9*	*77.9*

See data note on page 31. Network Rail's own internal targets are in *italics.*
See pages 33-34 for KPI definitions and development.

3. Scotland

Key performance indicators (KPIs)		2006-07	2007-08				2007-08
		Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Year end actual / Year end target
2 - Passenger train performance	Actual at end of quarter	**88.8**	**89.1**	**89.4**	**90.2**	**90.6**	**90.6**
ScotRail PPM MAA (%)	Industry target	**87.3**	**89.0**	**88.8**	**89.5**	**90.0**	**90.0**
3 - Network Rail delay minutes (Scotland route)	Year to date actual	**747.9**	**131.9**	**246.7**	**440.3**	**609.0**	**609.0**
Number of delay minutes (thousands) attributed to Network Rail causes	ORR derived target	**887.0**	**182.6**	**362.7**	**642.0**	**820.0**	**820.0**

2 – Passenger train performance

PPM for Scotrail at the end of Q4 was 90.6%, an improvement of 1.8 percentage points over Q4 in 2006-07.

3 – Network Rail delay minutes (Scotland route)

Network Rail was well ahead of both regulatory and business plan targets for 2007-08. Delay minutes for the year were 16% less than the internal target, with Scotland retaining its position as the best performing route.

3. Scotland

Key performance indicators (KPIs)		2006-07	2007-08				2007-08
		Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Year end actual / Year end target
5 - Asset failures	Actual 4-weekly average	**424**	**427**	**339**	**345**	**394**	**394**
Number of infrastructure incidents	Previous year's actual	**381**	**427**	**409**	**426**	**424**	***424***
6 - Asset stewardship index (ASI-R)	Year to date	**0.83**	**0.79**	**0.68**	**0.65**	**0.70**	**0.70**
Composite of seven asset condition measures	Network Rail target	***0.92***	***0.86***	***0.85***	***0.91***	***0.97***	***0.97***
7 - Activity volumes (track renewals only)	Actual cumulative	**104.8**	**108.1**	**101.2**	**98.6**	**96.1**	**96.1**
% Activity compared with plan	Network Rail target	***100***	***100***	***100***	***100***	***100***	***100***

5 – Asset failures

The number of infrastructure incidents causing delay in Scotland fell by 11% over the year consistent with GB performance. Reductions in points, signals and track circuit failures were offset by increases in change of aspect, cable faults, signalling system and power supply failures, and other infrastructure failures. Cable theft may be an issue in some of these.

6 – Asset stewardship index (ASI-R)

The equivalent regional measure (the ASI-R) was 27% better than Network Rail's internal stretch target, better than the GB trend.

7 – Activity volumes (track renewals only)

Network Rail renewed 195 km of plain line track in Scotland by the end of the year compared to a planned output of 203 km, a short fall of under 4%; and completed 49 switch and crossing units, against a planned total of 48. Both these totals considered to be a satisfactory performance.

3. Scotland

Key performance indicators (KPIs)		2006-07	2007-08				2007-08
		Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Year end actual / Year end target
8 (a) - Expenditure (OMR)	Year to date actual	**531.0**	**94.0**	**203.0**	**355.0**	**482.0**	**482**
Operating, maintaining and renewing the network	Year to date budget	**536.0**	**113.0**	**235.0**	**402.0**	**553.5**	**554**
(£ millions)	Variance %	**-0.9**	**-16.5**	**-13.7**	**-11.6**	**-12.9**	
8 (b) - Expenditure (enhancements)	Year to date actual	**20.0**	**3.0**	**7.0**	**15.0**	**23.9**	**24**
Enhancing the network	Year to date budget	**26.0**	**7.0**	**10.0**	**25.0**	**38.7**	**39**
(£ millions)	Variance %	**-23.1**	**-52.9**	**-30.0**	**-39.1**	**-38.2**	
10 - Financial efficiency index (FEI)	Year to date actual	**81.4**	**75.6**	**78.4**	**79.1**	**77.3**	**77.3**
Adjusted cost of operations, maintenance and track renewals	Network Rail target	**81.1**	**78.2**	**77.8**	**77.8**	**77.9**	**77.9**

8 – Expenditure variance

Comparison to budget

Total expenditure was £30 million (18%) below budget in Q4 and £86 million (15%) below budget for the year. Network Rail's explanation of the full-year variance is that it is largely related to:

- £66 million (19%) below budget on renewals, reflecting a deferral of £56 million of expenditure into future years and a £10 million reduction in contingency;
- £3 million (10%) below budget on non-controllable costs due to a release of provisions and the budget being cautious;
- £3 million (3%) below budget on maintenance due to greater efficiency; and
- £15 million (38%) below budget on enhancement expenditure due to delays with telecoms enhancement projects (£4 million) and with various smaller projects that have slipped into 2008-09.

Actual controllable costs were equal to budget.

Renewals expenditure in Scotland in Q4 was 22% under budget (compared to 10% under budget in England and Wales) and 19% under budget for the year (compared to 10% under budget in England and Wales). This was partly due to the impact of deferral of large schemes on the relatively smaller renewals budget for Scotland. For example, the underspend of £8 million on the Glasgow resignalling scheme was 67% of the signalling underspend in Scotland.

Total full year expenditure in 2007-08 was £29 million less than in 2006-7 (in real terms) due to savings of approximately £15 million on operating costs and a reduced spend on renewals of £13 million.

10 – Financial efficiency index (FEI)

According to Network Rail, at the end of Q4 efficiency was better than the FEI target. This is because of underspend, discussed in the expenditure section, partially offset by the track renewals unit costs being higher than budget. Even though most of the underlying issues are the same, this is different to the GB position because of the relatively low track renewals unit costs in Scotland, due to the lower direct cost of labour, and the mix of work, with a higher proportion of track renewals activities where Network Rail achieved higher efficiencies.

Note:

Please see comment on page 19

4. Major projects and other significant issues

Possessions Overrun

Following the overruns at Rugby, Liverpool Street station and Shields Junction over the New Year period, we investigated Network Rail's management of engineering projects. It is clear to us from our thorough investigation that Network Rail is failing to manage major engineering work as consistently well as it should. This is due particularly to weaknesses in the company's planning, risk assessment and site management of projects as well as to failures of communication within the company and with train operators. We published a draft Order directing it to address these failings and thus reduce the risk of similar events in the future. We also imposed a fine to mark the seriousness of this breach of Network Rail's licence and to send a clear message to the company's Board and senior management that it needs to address the weaknesses we have identified as a matter of urgency. The company also accepted that it did not have a robust plan, agreed with operators, to deliver the upgrade work to the West Coast main line needed for the December 2008 service improvements. We ordered it to produce quickly a plan on how it will do this. Plans were submitted by the required date of 31 March 2008.

West Coast route modernisation (WCRM)

Following the events at New Year, Network Rail revised the programme for the remaining infrastructure work and supplemented it with additional possessions, intended to increase the certainty of delivery of the December 2008 timetable change.

We reviewed Network Rail's plan, including contingency firewall possessions, and concluded that the plan is achievable, providing Network Rail robustly and diligently manages the delivery of the work against the revised programme.

Network Rail achieved significant milestones in Q4, particularly during the Easter Bank Holiday period when the WCRM team successfully commissioned the Leicester - Birmingham signalling upgrade at Nuneaton, installed a new bridge at Milton Keynes and completed various track and overhead line works across the route. Resource requirements, including key resources such as OLE linesmen and signal testers, are being managed very closely by Network Rail to ensure that there is no repetition of the events over New Year.

Network Rail's revised plan is dependent on achieving 25 key milestones, the first two of which were achieved on 5 and 29 May with the successful commissioning of Stages 1 and 3 of the Trent Valley four tracking project, and Stage G of the Rugby - Nuneaton project.

Notwithstanding the achievements over the past few months the West Coast programme remains a major challenge and Network Rail will need to remain focused as it progresses through 2008. The company needs to work closely with the TOCs and FOCs involved to ensure that all reasonable steps are taken to minimise the impact on their operations during the planned disruption on the route over the remainder of 2008. We will closely monitor delivery of the remaining milestones as the year progresses to ensure Network Rail remain on target to deliver the timetable improvements at the end of 2008.

4. Major projects and other significant issues

There is growing concern at the need to improve infrastructure performance on the route, particularly following the spate of signal power supply failures during April and May in the Milton Keynes and Bletchley areas. Network Rail has said that a team has been established to investigate the problems that occurred and to put in place a coordinated plan to better manage the old power supply cables until they are renewed. The cables at Milton Keynes will be renewed during 2008, and the cables at Bletchley are planned for renewal in the next control period.

Forecast total expenditure in CP3 for the whole West Coast main line route (WCRM project and all other regional condition renewals) is currently 4.6% over the CP3 regulatory allowance (a re-opening is allowed when this exceeds 15%). For the WCRM project alone, the forecast expenditure is at 19.6% above the regulatory funding provision for CP3, virtually unchanged from previous reports. These figures do not yet include the cost impact of the revised programme. Additional expenditure over the regulatory allowance will be funded by Network Rail.

Implementation of the European rail traffic management system (ERTMS)

In August 2007 the Department for Transport (DfT) published the national implementation plan to introduce ERTMS throughout most of the rail network. Implementation is being led by a Network Rail project team on behalf of the wider industry. From 2015 the aim is for all major signalling renewals to incorporate ERTMS.

The trial site for the technology is the Cambrian line, between Aberystwyth and Shrewsbury. Designs for the infrastructure and trains are under way. The Cambrian project involves train operators, RSSB and the Association of train operators (ATOC), as well as Network Rail and its contractors. Network Rail plans to commence testing of the first vehicle in July 2008. Implementation of the system is now planned for autumn 2009, which has slipped from early 2009 as reported in Q3. This is an example of a high level of cross-industry involvement and commitment, which will be vital to secure the success of this critical project.

Telecommunications

The Railway communications system (FTN/GSM-R) project, which will provide an enhanced GB-wide communications system for trains and a modern data transmission, has been slightly delayed. Network Rail has restructured the project organisation to reflect the current needs of the national project. Much greater emphasis will be placed on the train fitment elements of the project working with train operators to determine and prioritise responsibilities for fitment as well as commercial settlements. The overall timescale for the project is extremely tight, particularly for England south of the Wash where the existing national radio network (NRN) radios must be replaced by 2012.

Asset register - Network Licence Condition 24 (LC24)

Network Rail formally notified us in March 2008 that it believes it has achieved full compliance with Condition 24 of the Network Licence. AMCL, the independent reporter assessing Network Rail's asset management, completed the audit of tasks and processes required to achieve compliance and reviewed the actions taken by Network Rail. We are satisfied that Network Rail has now achieved compliance.

It is important now that the various processes are embedded within everyday working practices at Network Rail. Further monitoring and auditing will take place during the coming year to ensure that achievement of the purpose of Condition 24 continues. In particular, we expect to see that asset information is being maintained and improved and that it supports the broader asset management best practices exercised by Network Rail.

4. Major projects and other significant issues

Delivery of major schemes

It is still apparent that both renewal work (especially signalling) and enhancements are being deferred on a regular basis. We will continue to assess the underlying causes for this. We have taken this into account in the periodic review and we will strengthen our monitoring of enhancements and renewals to identify early any slippages and initiate appropriate recovery action.

Enhancement schemes

ACR funded

Expenditure on ACR2003 funded schemes was £50 million over budget in 2007-08, as forecast at Q3. The primary driver of this was the WCRM project, which finished the year £55 million over budget due to increased spend in order to achieve the December 2008 timescales.

Government sponsored

Expenditure on Government sponsored schemes was £56 million under budget, £17 million more than the £39 million forecast at Q3. Thameslink remained under budget (£44 million, compared with £40 million forecast at Q3) due primarily to deferrals made to achieve efficiencies as discussed in previous monitors. In addition there has been significant slippage on the Disability Discrimination Act (DDA) programme this quarter as the plan was re-profiled.

Non ACR 2003 RAB funded (not government sponsored)

The outturn for the full year was £34 million less than budget, a slight improvement on the Q3 forecast of spend under budget of £37 million. The majority of this lies with 'other' schemes, with some of the larger examples being:

- Network Rail infrastructure supply centre (£3.3 million variance) - this project has been postponed indefinitely as Network Rail is re-assessing feasibility;
- LNE minor linespeed improvements (£2.2 million) - this project was delayed because the business case has been revised by Network Rail; and

Table 2 Enhancement expenditure

£ million	2007-08			
	Actual	Budget	Variance	Variance %
ACR funded	273.2	223.4	49.8	22.3%
NR funded	34.3	68.3	-34.0	-49.8%
Safety & environment	68.1	100.3	-32.2	-32.1%
Government sponsored	184.4	239.9	-55.6	-23.2%
NRDF	61.2	91.0	-29.8	-32.8%
Out performance	92.7	105.8	-13.1	-12.4%
TOC sponsored	31.3	62.9	-31.6	-50.3%
Planning adjustment	-	-143.5	-	-
Total	**745.1**	**748.2**	**-3.0**	**-0.4%**

- South East development schemes (£6.0 million) - this relates to projects in Kent and Wessex where there has been some slippage caused by delays in agreeing scope.

Network Rail discretionary fund (NRDF)

Full year spend was £30 million under budget due to deferrals into 2008-09, although the ramp up in the rate of spend has been significant, as reported in the Q3 monitor. Because of the important role this fund will play in CP4 we have asked the independent reporter to review the process for selection, development and implementation of schemes paid for from the fund.

Out-performance fund

Full year spend was £13 million under budget which is a further deterioration from the Q3 forecast of £11 million. The primary driver of this was Platform Y at Kings Cross, which has been deferred into 2008-09 in order to coincide with other works at the station, considered to be more efficient and less disruptive to passengers.

TOC sponsored

Full year spend was £32 million under budget, which is a further deterioration from the Q3 forecast of £20 million. This is primarily due to delays agreeing scope with customers.

5. Key to tables and data notes

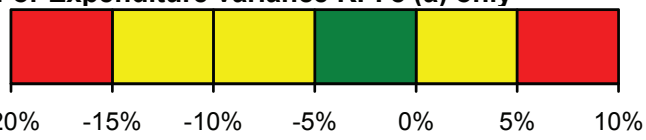
Key to Network Rail monitor graphs

Key:-

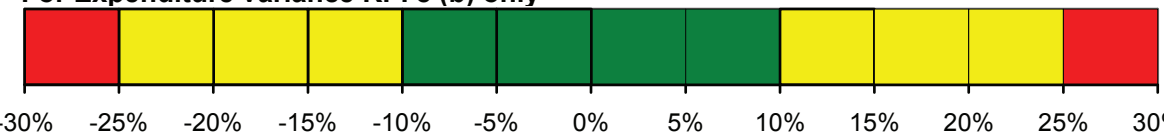
On or better than target
0.1-10% worse than target
More than 10% worse than target and clear cause for concern (otherwise yellow).

n/app	Information not applicable
n/av	Information not available at the moment

For Expenditure variance KPI 8 (a) only



For Expenditure variance KPI 8 (b) only



Data notes

Where an indicator is shown to be red, we will assess the reasons for this and determine the extent to which there is cause for concern and what Network Rail needs to do to improve the situation.

Introduction

Safety data is measured monthly and published by Rail Safety and Standards Board (RSSB) each calendar quarter.
All other data is four-weekly based. There are 13 four-week periods (P) in a financial year. The period quarters (Q) are set out below.

Q1	Q2	Q3	Q4
P1-3	P4-6	P7-10	P11-13

KPIs 1, 2 and 6 are actual values at the end of quarter.
KPI 2 is a 'moving annual average' (MAA) the total for the previous 13 four weekly periods divided by 13. (This definition of MAA makes it a lagging indicator). Latest quarter is a provisional estimate.
Network-wide KPIs 1 and 9 are not disaggregated below network level.
For KPI 2, an increase over time denotes improvement.
For KPIs 3, 4, 5, 6 and 10, a decrease over time denotes improvement.
For KPI 6, the ASM has been replaced by the ASI for the whole network and ASI-R for routes. Historic targets for this measure are not available.
Figures in the monitor are the latest available and may be further updated.

Please note that RSSB PIM data and National rail trends are based on calendar months. The Network Rail monitor reflects the Network Rail four-week periods and quarters split by period rather than by calendar month. This results in some small differences in figures reported.

Targets

The 'actual' data is compared with the appropriate ORR target where one has been set. Otherwise Network Rail's own internal target (to meet Network Rail's required overall outputs as set by ORR) is used. Where this is not available or appropriate, the data for the corresponding period in the previous year is used as the comparator.

5. Key to tables and data notes

Composition of infrastructure incident groups (Figure 5)

Weather/structures group
External, weather impact
Lineside structure defects

External factors (excl. weather) group
Bridge strikes
External fatalities and trespass
External fires
External infrastructure damage - vandalism/theft
External level crossing/road incidents (not bridges)
External other
External police on line/security alerts
Fires starting on Network Rail infrastructure
Mishap - requiring joint enquiry to establish responsibility

Management control group
All Z codes - unexplained
Mishap - infrastructure causes
Other infrastructure
Possession over-run and related faults
Possession work left incomplete
Problems with trackside signs including TSR boards
Network Rail commercial responsibility: other
Network Rail commercial responsibility: takeback
Network Rail commercial responsibility: train planning
Network Rail production responsibility
Vegetation management failure

Non-track assets group
Animals on line
Cable faults (signalling & comms)
Change of aspects-no fault found
Level crossing failures
OLE/third rail faults
Other signal equipment failures
Points failures
Signal failures
Signalling system & power supply failures
Telephone failures
Track circuit failures

Track assets group
Broken rails/track faults
Gauge corner cracking
TSR's due to condition of track

Autumn delays
Network Rail leaf fall neutral zone - freight
Network Rail leaf fall neutral zone - passenger
Track circuit failures - leaf fall
Wheel slip due to leaf fall

6. KPI definition and developments

KPI 1 Safety risk

The train accident precursor indicator model (PIM), which is managed by the Rail Safety and Standards Board (RSSB), measures the risk per million train miles of a train accident, e.g. collisions, derailments, fires or striking a road vehicle at a level crossing. The measure incorporates 84 precursor events in six groups. Around 65% of the risk arises from events largely under the control or the responsibility of Network Rail, e.g. track geometry, infrastructure failures, environmental factors (such as flooding or land slips) and minimising level crossing misuse.The PIM risk indicator was set to a reference value of 100 at the end of March 2002 and it provides a measure of the change in risk relative to this level. A reduction in the index is therefore beneficial, denoting a reduction in risk.

KPI 2 Passenger train performance

The public performance measure (PPM) represents the percentage of trains run by franchised passenger operators arriving at their destination within a specified lateness margin (typically five or ten minutes) and making all planned station stops. This measure captures all delay causes (including Network Rail and train operators). For simplicity, the Great Britain monitor reports PPM all franchised TOCs. The England & Wales monitor reports PPM for all franchised passenger operators with the exception of First ScotRail. The Scotland monitor reports only First ScotRail PPM, as it accounts for the great majority of passenger train mileage in Scotland.

KPI 3 Network Rail delay minutes

This measures the total number of minutes delay to all passenger and freight trains where the cause of delay is attributed to Network Rail.

For England & Wales and for Scotland, we compare Network Rail's delay to passenger trains with our derived target.

KPIs 4 (a) & 4 (b) Passenger and freight delay

These measures are delay minutes per 100 train kilometres. For franchised passenger operators, we compare delay against a derived regulatory target. For freight operators, we compare delay against Network Rail's target.

KPI 5 Infrastructure assets - Asset failures

This is the total number of incidents causing train delay where the cause is the responsibility of Network Rail. This measures the performance of assets where failure directly delays trains.

KPI 6 Infrastructure assets - Asset stewardship index (ASI) (GB only)

This is a composite index that includes elements (e.g. track geometry) where degradation is more gradual and does not necessarily cause train delays. This established measure has been adopted on an interim basis, but we intend to work with Network Rail to develop an indicator which covers a wider range of infrastructure assets and which has no overlap with the asset failures measure.

KPI 6 Infrastructure assets - Asset stewardship index - routes (ASI-R) (England and Wales, and Scotland)

The asset stewardship measure has been replaced by the ASI-R. The ASI-R is similar to the network-wide ASI and differs only in detailed respects for the track geometry, which in part explains the difference in the national figures shown in the England and Wales, and Scotland monitors compared with those in the Great Britain monitor. The split ASI-R also uses different baselines for different parts of the network, which prevents direct comparisons of local asset stewardship with this measure. We expect Network Rail to develop this measure to facilitate benchmarking across the network.

6. KPI definition and developments

KPI 7 Activity volumes

While Network Rail can analyse its expenditure by class of work, at present it can only provide a detailed measure of the volume of track renewals. Network Rail has been reviewing for some time a composite measure encompassing the vast majority of infrastructure renewals. A draft of this has now been received and is under review. The activity volumes measure in this monitor remains confined to track renewals.

KPI 8 (a) & (b) Expenditure

(a) compares Network Rail's expenditure on operations, maintenance and renewals (OMR) against the company's own budgeted expenditure.

(b) compares Network Rail's expenditure on enhancements (excluding third party funding and investment) against the company's own budgeted expenditure.

KPI 9 Financing (Debt to RAB (regulatory asset base) ratio)

This financial indicator measures Network Rail's net debt position as a percentage of its regulatory asset base (RAB). This is one way of measuring the financial gearing of the company and is used for regulatory purposes.

The actual figures are based on actual net debt (on a regulatory basis) divided by the company's own valuation of the RAB at the end of the period concerned. The budget figures are calculated similarly, using budgeted net debt and budgeted RAB.

KPI 10 Financial efficiency index (FEI)

This index shows changes in Network Rail's operating, maintenance, and renewal expenditure, normalised to take account of changes in the volume of work required. The coverage of the index has now been extended this year to include switch and crossing renewals and major resignalling schemes.

Total maintenance expenditure is normalised for the change in equivalent track miles (a measure of track type, length, traffic tonnage and speed). Plain-line track renewals expenditure is normalised for changes in the volume of track renewed. Expenditure on switch and crossing renewals is normalised for changes in switch and crossing volumes renewed. Expenditure on major resignalling schemes is normalised by signalling equivalent units. The measure is now reported as a score out of a 100 in line with the other performance measures. A base score of 100 reports efficiency levels equivalent to actual performance in 2003-04, scores below this represent efficiency gains beyond 2003-04 performance.

KPI 11 Network Rail customer satisfaction

Network Rail has a measure for gauging customer satisfaction both for passenger and freight operators. This is based on research administered by Ipsos MORI, to find out how Network Rail is perceived by its customers. One of the questions asked "Which of these best describes how you feel about Network Rail? "Perceptions of customers' relationship with Network Rail are measured using a five-point advocacy scale (+2 to –2), where zero indicates a neutral view of their performance. By summing the scores and dividing by the number of respondents a weighted index score is derived.

Major schemes

There is no single performance indicator for projects. We monitor projects which are specifically funded in the ACR2003, for emerging expenditure against the regulatory settlement, and for the delivery of projects compared to high-level objectives.