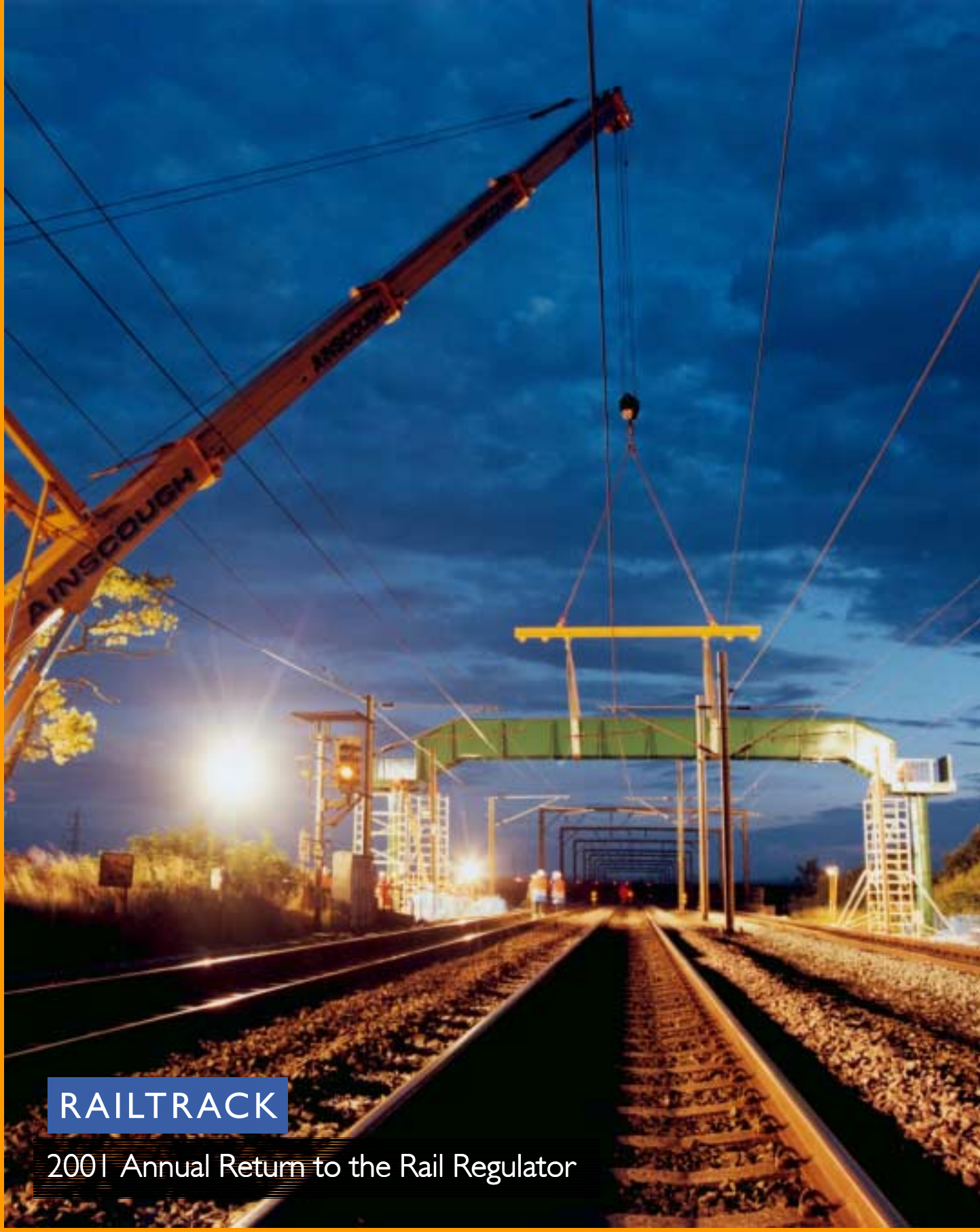
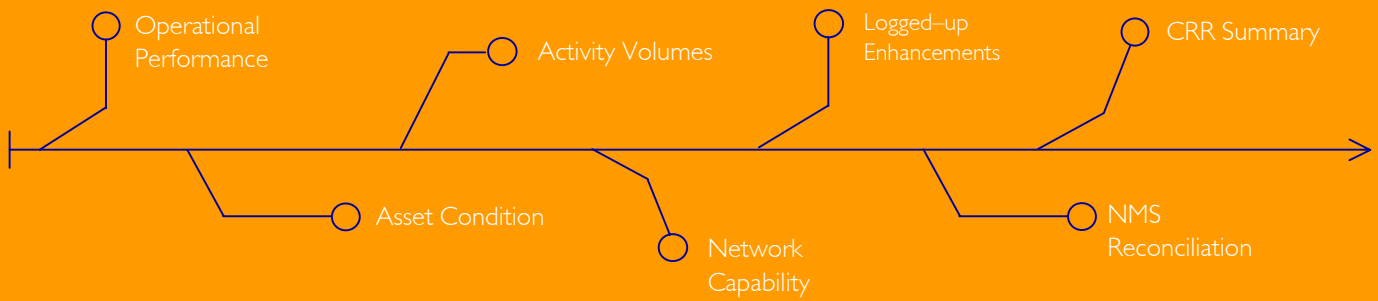


RAILTRACK

2001 Annual Return to the Rail Regulator



Contents

Executive summary

Introduction

This is the first Annual Return from Railtrack to the Rail Regulator. It reports data on actual expenditure, operational performance, activity and asset condition in the year 2000/01.

Content of this Annual Return

There are seven main sections in this Annual Return:

- **Operational Performance**
  Data on Railtrack–caused train delays in delay minutes and in minutes delay per 100 train kilometres.
- **Asset Condition & Serviceability**
  Data on measures of asset condition and serviceability including broken rails, track geometry, signalling failures and station condition.
- **Activity Volumes**
  Data on the volume of renewal activity for rail, sleepers, ballast, bridges and signalling.
- **Network Capability**
  Data on the length of electrified track, length of track by line speed and by permitted axle weight, and the length of route by loading gauge band.
- **Summary of logged-up enhancements**
  Actual and forecast expenditure on logged-up enhancements broken down by category.
- **2000 NMS Reconciliation Statement**
  Data on actual expenditure in 2000/01 against the forecasts given in the 2000 NMS. It contains renewal expenditure by asset type as well as details of enhancement and maintenance expenditure. Information is given by zone and for each of the 45 strategic routes defined in the NMS.
- **Customer Reasonable Requirements (CRR)**
  A summary of the number and status of CRR schemes for each train operator or funder.

Overview of the year

Last year was a particularly difficult and challenging one for Railtrack, dominated by the Hatfield accident. The accident was caused by a broken rail, which itself was caused by a defect known as Gauge Corner Cracking (GCC). This event triggered a comprehensive review of track quality and the implementation of a huge recovery programme to eliminate GCC defects. This programme has caused wide scale network disruption.

Delays attributable to Railtrack's infrastructure and network management more than doubled in 2000/01 to 17.3 million minutes. Delay minutes per 100 train kilometres for passenger services increased from 1.54 to 3.56. During the first half of the year Railtrack-caused delays were running at a little over half a million minutes per four-week period. After the accident in October delays peaked at 3 million minutes per period before gradually reducing as the recovery programme progressed. The deterioration in performance was due primarily to the impact of GCC related speed restrictions imposed during the recovery programme. The railway also suffered from extreme weather conditions, with both autumn 2000 and the 12 months to March 2001 being the wettest since records began.

During the year we renewed over 1000km of rail. This is more than twice the amount carried out in recent years and was the most intensive programme of rail renewal on Britain's rail network in the last 50 years.

The level of renewals expenditure during the year was the highest since Railtrack's existence and at £1.7 billion was about 40% more than in the previous year and 25% more than forecast in the 2000 NMS. Expenditure on enhancement schemes was also up 40% on the previous year.

The full benefits of this increased expenditure will take some time to feed through although some benefits are already evident. The number of broken rails was down significantly, by 23%, notwithstanding the catastrophic broken rail at Hatfield, and we beat the Regulator's target by 8%. We also achieved the target for average asset condition at stations, although further work is necessary to achieve the regulatory target for track geometry.

Transparent Reporting

The Annual Return is a key regulatory document and will be the primary means by which Railtrack demonstrates progress in delivering the outputs assumed in the Periodic Review. The Annual Return is also publicly available enabling other stakeholders to use it as a reference document.

Introduction

Background

This is the first Annual Return from Railtrack to the Office of the Rail Regulator (ORR). It reports on expenditure, operational performance, activity and asset condition in 2000/01.

The outputs which Railtrack had to deliver in the first control period (1995-2001) were never clearly defined and the reporting framework was poorly specified. This unstructured approach hindered transparency and made it difficult to demonstrate to the Regulator, and other stakeholders, that we were delivering what was expected.

The Periodic Review defined more clearly what we have to achieve over the next five years and established the requirements for reporting progress in a consolidated and consistent way – through the new Annual Return.

Regulatory Monitoring

The Annual Return is a key regulatory document and will be the primary means by which Railtrack demonstrates progress in delivering the outputs assumed in the Periodic Review. The Annual Return is also publicly available enabling other stakeholders to use it as an important reference document.

Many of the regulatory output targets for assets and network capability are specified as 'no deterioration from the position at the start of the second control period'. In some cases the target will relate to levels observed in 2000/01 (and hence reported in this Annual Return), whilst for others the baseline will be established later when a sufficient sample is achieved (e.g. for asset condition). Most asset condition information is based on assessments from a sample of assets; as more surveys are carried out the reliability of the condition score for each category of asset will improve.

Scope of Reporting

Many of the asset condition and serviceability measures in this Annual Return are new and only started to be recorded in 2000/01. Railtrack and the Regulator have discussed the development of additional monitoring measures to those already agreed. New measures being considered include those for track and earthworks condition, renewal activity for switches and crossings and additional categories for ballast and sleeper renewal. These measures may be included in future Annual Returns once data can be reported reliably and consistently. This can only be done when detailed definitions and procedures have been agreed.

Accuracy of Asset Data

It is important that data provided to ORR and put into the public domain is consistent and robust, so that zonal comparisons and future movements in each measure properly reflect performance and are not due to variations in data quality.

Over the last 18 months we have put considerable effort into improving data quality. We have done this by clarifying definitions and procedures for measures and by ensuring that staff involved in recording data have been properly trained. This has been particularly important for the new asset measures. We have also carried out internal audits to test the robustness of the procedures and consistency of interpretation across the country. These actions have improved the reliability and accuracy of data reporting but there are some areas where further improvements are still required. Areas of particular concern are highlighted in this Return.

Section 1 – Operational Performance

Introduction

Delays to train journeys experienced by passenger and freight companies are broken down into Railtrack-caused delays and those caused by train operators. Those attributable to Railtrack typically relate to infrastructure, timetabling and operation of the network or external events. Those attributable to train operators typically relate to train operations, fleet reliability, or problems with train crew resources. At the end of 2000/01 approximately 58% of all delays to passenger trains and 18% of all delays to freight trains were attributable to Railtrack. This Annual Return provides data on Railtrack-caused delays only. Figures are presented for 2000/01 in delay minutes and in minutes delay per 100 train kilometres.

Commentary

Delays attributable to Railtrack's infrastructure and network management more than doubled in 2000/01 to 17.3 million minutes. The increase in delays to passenger trains to 14.3 million minutes was particularly pronounced (see Table 1). When combined with a decrease of some 2% in the kilometres run by trains, it left the key Regulatory Monitoring Target, of Railtrack-attributed delays per 100 train km, at 3.56 minutes – around 2.5 times the targeted level. Delays to freight trains also increased sharply to 3.0 million minutes (see Table 2).

The deterioration in performance was dominated by the impact of GCC related speed restrictions imposed following the Hatfield accident (see category 104c 'Gauge Corner Cracking' in Table 3). These accounted directly for 58% of the increase in total delays to passenger trains against 1999/2000 levels.

The railway also suffered from extreme weather conditions, with both autumn 2000 and the 12 months to March 2001 being the wettest since records began. In addition to the direct consequences of flooding, the prolonged wet weather throughout the year also impacted on embankments and river bridges, causing further disruption to services. Total delays due to the impact of weather in 2000/01 were equivalent to 20% of the entire total delays attributable to Railtrack in the previous year (see categories 110 and 105 in Table 3).

The indirect impact of the programme of work to remove speed restrictions is evident in the scale of delays arising out of train planning and possessions over-runs etc, with these categories accounting for nearly 6% of total delays. Track circuit and points failures accounted for nearly 1.9 million delay minutes and were the largest causes of infrastructure related delay (excluding the impact of GCC).

The delays by cause category across Railtrack's seven zones are shown in Tables 4 – 10. These highlight the particularly severe impact of GCC speed restrictions on the Midlands and East Anglia zones relative to train kilometres run.

The scale of disruption to train services in the autumn can be seen from Table 11, which shows delays by Zone split down into four-week periods. Total delays were in the range 530,000 – 750,000 minutes per four-week period in the first half of the year. By contrast, Periods 8 and 9, commencing in mid-October, saw an average of 3 million minutes per period. By the end of the year performance had improved significantly, with delays falling to around 50% of their peak level.

Table 1 National Delays to Passenger Train services (Regulatory Monitoring Target)		
Railtrack-attributed delays	**1999/00**	**2000/01**
Delay minutes[1]	6,357,365	14,328,453
Train km[2]	411,783,295	402,794,776
Delay minutes per 100 train km[3]	1.54	3.56
Index (1999/00 = 100)		
Actual minutes delay per 100 train km	100.0	230.4
Regulatory Monitoring Target	100.0	92.2

1. The delay totals are based on all Railtrack-attributed delays affecting applicable passenger operators (main scheduled operators).
2. Train kilometres run for trains of applicable operators, excluding empty coaching stock movements.
3. Based on all delay minutes, divided by the train kilometres run, multiplied by 100.

Table 2 National Delays to Freight Train services		
Railtrack-attributed delays	**1999/00**	**2000/01**
Delay minutes[1]	1,399,325	3,004,408
Train km[2]	47,092,101	46,556,047
Delay minutes per 100 train km[3]	2.97	6.45

1. The delay totals are based on all Railtrack-attributed delays affecting applicable freight operators' services (which exclude certain industry services such as ballast trains).
2. Train kilometres run for trains of applicable operators' services.
3. Based on all delay minutes, divided by the train kilometres run, multiplied by 100.

Impact of the Train Protection and Warning System

The new Train Protection and Warning System (TPWS) currently being installed across the network will have an adverse affect on train delay, and we believe that it would be appropriate to exclude TPWS caused delays from the regulatory monitoring regime. We intend to discuss this with the Regulator. The delay minutes shown in Tables 1 and 2 include delays caused by TPWS, 3652 minutes for passenger trains and 161 minutes for freight trains. We expect that as TPWS is rolled out over the next 2 years these delays will increase.

Table 3 NATIONAL delays to passenger & freight trains by detailed cause category – 2000/01							
No.	Category	Passenger Train delay minutes	Passenger Train delay minutes per 100 train km	Freight Train delay minutes	Freight Train delay minutes per 100 train km	Combined Train delay minutes	Combined Train delay minutes per 100 train km
101	Points failures	649,489	0.16	152,538	0.33	802,027	0.18
102	Problems with trackside signs, TSR boards	53,530	0.01	8,724	0.02	62,254	0.01
103	Level crossing failures	93,501	0.02	9,724	0.02	103,225	0.02
104A	TSRs due to condition of track	354,678	0.09	187,732	0.40	542,410	0.12
104B	Broken rails/track faults	673,870	0.17	185,223	0.40	859,093	0.19
104C	Gauge corner cracking	4,742,529	1.18	905,788	1.95	5,648,317	1.26
105	Lineside structure defects	483,947	0.12	133,406	0.29	617,353	0.14
106	Other infrastructure	429,919	0.11	99,305	0.21	529,224	0.12
107A	Possession over-run and related faults	238,214	0.06	85,231	0.18	323,445	0.07
107B	Possession work left incomplete	70,188	0.02	19,979	0.04	90,167	0.02
108	Mishap - infrastructure causes	39,329	0.01	24,675	0.05	64,004	0.01
109	Animals on line	119,792	0.03	15,122	0.03	134,914	0.03
110	External weather impact	735,673	0.18	234,233	0.50	969,906	0.22
111A	Wheel slip due to leaf fall	81,847	0.02	7,441	0.02	89,288	0.02
111B	Vegetation management failure*	3,295	0.00	487	0.00	3,782	0.00
112	Fires starting on Railtrack infrastructure	26,217	0.01	1,820	0.00	28,037	0.01
150	Railtrack share of industry leaf-fall/adhesion delays	244,583	0.06	2,326	0.00	246,909	0.05
201	Overhead line/Third rail faults	250,070	0.06	30,456	0.07	280,526	0.06
301A	Signal failures	313,260	0.08	37,596	0.08	350,856	0.08
301B	Track circuit failures	952,702	0.24	105,644	0.23	1,058,346	0.24
302A	Signalling system & power supply failures	281,070	0.07	58,267	0.13	339,337	0.08
302B	Other signal equipment failures	45,996	0.01	20,690	0.04	66,686	0.01
303	Telephone failures	27,631	0.01	3,283	0.01	30,914	0.01
304	Cable faults (signalling & telecoms)	97,991	0.02	18,757	0.04	116,748	0.03
304A	Change of aspects-no fault found	9,530	0.00	587	0.00	10,117	0.00
305	Track circuit failures - leaf fall	12,647	0.00	1,222	0.00	13,869	0.00
401	Bridge strikes	171,066	0.04	12,776	0.03	183,842	0.04
402	External infrastructure damage - vandalism/theft	320,807	0.08	41,496	0.09	362,303	0.08
403	External level crossing/road incidents (not bridges)	64,296	0.02	8,002	0.02	72,298	0.02
501	Railtrack Production responsibility	903,657	0.22	166,537	0.36	1,070,194	0.24
502A	Railtrack Commercial: train Planning	326,839	0.08	239,808	0.52	566,647	0.13
502B	Railtrack Commercial responsibility: other	54,753	0.01	8,928	0.02	63,681	0.01
502C	Railtrack Commercial: dispute take-back	286,698	0.07	10,414	0.02	297,112	0.07
503	External fatalities and trespass	399,219	0.10	59,922	0.13	459,141	0.10
504	External police on line/security alerts	103,338	0.03	7,567	0.02	110,905	0.02
505	External fires	24,796	0.01	6,450	0.01	31,246	0.01
506	External other	150,056	0.04	26,751	0.06	176,807	0.04
601	Unexplained	491,430	0.12	65,501	0.14	556,931	0.12
Total minutes		**14,328,453**	**3.56**	**3,004,408**	**6.45**	**17,332,861**	**3.86**
Train km		**402,794,776**		**46,556,047**		**449,350,823**	

* New category introduced: data may not fully reflect the impact of delays due to this cause

Table 4	EAST ANGLIA delays to passenger & freight trains by detailed cause category – 2000/01		
No	Category	Train delay minutes	Train delay minutes per 100 train km
101	Points failures	67,628	0.16
102	Problems with trackside signs, TSR boards	4,105	0.01
103	Level crossing failures	14,892	0.04
104A	TSRs due to condition of track	23,506	0.06
104B	Broken rails/track faults	60,235	0.15
104C	Gauge corner cracking	924,597	2.25
105	Lineside structure defects	57,053	0.14
106	Other infrastructure	12,825	0.03
107A	Possession over-run and related faults	20,693	0.05
107B	Possession work left incomplete	820	0.00
108	Mishap - infrastructure causes	1,519	0.00
109	Animals on line	10,883	0.03
110	External weather impact	32,498	0.08
111A	Wheel slip due to leaf fall	6,637	0.02
111B	Vegetation management failure*	20	0.00
112	Fires starting on Railtrack infrastructure	977	0.00
150	Railtrack share of industry leaf-fall/adhesion delays	1,395	0.00
201	Overhead line/Third rail faults	51,928	0.13
301A	Signal failures	26,215	0.06
301B	Track circuit failures	95,713	0.23
302A	Signalling system & power supply failures	16,932	0.04
302B	Other signal equipment failures	3,406	0.01
303	Telephone failures	2,218	0.01
304	Cable faults (signalling & telecoms)	8,126	0.02
304A	Change of aspects-no fault found	193	0.00
305	Track circuit failures - leaf fall	772	0.00
401	Bridge strikes	15,434	0.04
402	External infrastructure damage - vandalism/theft	16,138	0.04
403	External level crossing/road incidents (not bridges)	8,509	0.02
501	Railtrack Production responsibility	123,659	0.30
502A	Railtrack Commercial: train Planning	29,515	0.07
502B	Railtrack Commercial responsibility: other	3,861	0.01
502C	Railtrack Commercial: dispute take-back	6,641	0.02
503	External fatalities and trespass	67,824	0.16
504	External police on line/security alerts	7,486	0.02
505	External fires	8,270	0.02
506	External other	24,898	0.06
601	Unexplained	6,941	0.02
Total minutes		**1,764,962**	**4.29**
Train km		**41,180,715**	

* New category introduced: data may not fully reflect the impact of delays due to this cause

Table 5	GREAT WESTERN delays to passenger & freight rains by detailed cause category–2000/01		
No.	Category	Train delay minutes	Train delay minutes per 100 train km
101	Points failures	105,248	0.18
102	Problems with trackside signs, TSR boards	10,604	0.02
103	Level crossing failures	9,952	0.02
104A	TSRs due to condition of track	29,284	0.05
104B	Broken rails/track faults	160,014	0.27
104C	Gauge corner cracking	883,186	1.48
105	Lineside structure defects	96,227	0.16
106	Other infrastructure	18,296	0.03
107A	Possession over-run and related faults	23,201	0.04
107B	Possession work left incomplete	1,589	0.00
108	Mishap - infrastructure causes	4,003	0.01
109	Animals on line	21,386	0.04
110	External weather impact	154,324	0.26
111A	Wheel slip due to leaf fall	6,781	0.01
111B	Vegetation management failure*	1,816	0.00
112	Fires starting on Railtrack infrastructure	49	0.00
150	Railtrack share of industry leaf-fall/adhesion delays	2,366	0.00
201	Overhead line/Third rail faults	273	0.00
301A	Signal failures	50,701	0.08
301B	Track circuit failures	135,722	0.23
302A	Signalling system & power supply failures	46,362	0.08
302B	Other signal equipment failures	17,030	0.03
303	Telephone failures	4,699	0.01
304	Cable faults (signalling & telecoms)	7,815	0.01
304A	Change of aspects-no fault found	431	0.00
305	Track circuit failures - leaf fall	544	0.00
401	Bridge strikes	25,868	0.04
402	External infrastructure damage - vandalism/theft	37,318	0.06
403	External level crossing/road incidents (not bridges)	9,571	0.02
501	Railtrack Production responsibility	98,167	0.16
502A	Railtrack Commercial: train Planning	81,427	0.14
502B	Railtrack Commercial responsibility: other	14,569	0.02
502C	Railtrack Commercial: dispute take-back	32,341	0.05
503	External fatalities and trespass	79,600	0.13
504	External police on line/security alerts	13,909	0.02
505	External fires	4,771	0.01
506	External other	19,123	0.03
601	Unexplained	28,457	0.05
Total minutes		**2,237,024**	**3.74**
Train km		**59,769,992**	

* New category introduced: data may not fully reflect the impact of delays due to this cause

Table 6	LONDON NORTH EAST delays to passenger & freight trains by detailed cause category–2000/01		
No.	Category	Train delay minutes	Train delay minutes per 100 train km
101	Points failures	103,805	0.15
102	Problems with trackside signs, TSR boards	10,644	0.02
103	Level crossing failures	28,138	0.04
104A	TSRs due to condition of track	156,836	0.22
104B	Broken rails/track faults	88,433	0.13
104C	Gauge corner cracking	852,524	1.22
105	Lineside structure defects	99,253	0.14
106	Other infrastructure	134,022	0.19
107A	Possession over-run and related faults	118,492	0.17
107B	Possession work left incomplete	27,173	0.04
108	Mishap - infrastructure causes	7,373	0.01
109	Animals on line	19,929	0.03
110	External weather impact	211,811	0.30
111A	Wheel slip due to leaf fall	5,888	0.01
111B	Vegetation management failure*	98	0.00
112	Fires starting on Railtrack infrastructure	1,565	0.00
150	Railtrack share of industry leaf-fall/adhesion delays	506	0.00
201	Overhead line/Third rail faults	34,793	0.05
301A	Signal failures	43,081	0.06
301B	Track circuit failures	84,360	0.12
302A	Signalling system & power supply failures	59,553	0.09
302B	Other signal equipment failures	15,187	0.02
303	Telephone failures	9,920	0.01
304	Cable faults (signalling & telecoms)	34,842	0.05
304A	Change of aspects-no fault found	682	0.00
305	Track circuit failures - leaf fall	8,367	0.01
401	Bridge strikes	20,037	0.03
402	External infrastructure damage - vandalism/theft	66,132	0.09
403	External level crossing/road incidents (not bridges)	18,824	0.03
501	Railtrack Production responsibility	224,308	0.32
502A	Railtrack Commercial: train Planning	72,401	0.10
502B	Railtrack Commercial responsibility: other	14,785	0.02
502C	Railtrack Commercial: dispute take-back	37,047	0.05
503	External fatalities and trespass	54,262	0.08
504	External police on line/security alerts	15,341	0.02
505	External fires	4,433	0.01
506	External other	22,568	0.03
601	Unexplained	99,990	0.14
Total minutes		**2,807,403**	**4.01**
Train km		**69,995,435**	

* New category introduced: data may not fully reflect the impact of delays due to this cause

Table 7	MIDLANDS delays to passenger & freight trains by detailed cause category – 2000/01		
No	Category	Train delay minutes	Train delay minutes per 100 train km
101	Points failures	173,495	0.22
102	Problems with trackside signs, TSR boards	25,365	0.03
103	Level crossing failures	14,385	0.02
104A	TSRs due to condition of track	191,121	0.24
104B	Broken rails/track faults	210,895	0.26
104C	Gauge corner cracking	1,948,626	2.43
105	Lineside structure defects	80,642	0.10
106	Other infrastructure	165,567	0.21
107A	Possession over-run and related faults	89,422	0.11
107B	Possession work left incomplete	27,604	0.03
108	Mishap - infrastructure causes	42,099	0.05
109	Animals on line	29,486	0.04
110	External weather impact	190,275	0.24
111A	Wheel slip due to leaf fall	14,392	0.02
111B	Vegetation management failure*	186	0.00
112	Fires starting on Railtrack infrastructure	3,051	0.00
150	Railtrack share of industry leaf-fall/adhesion delays	8,778	0.01
201	Overhead line/Third rail faults	64,034	0.08
301A	Signal failures	68,311	0.09
301B	Track circuit failures	248,937	0.31
302A	Signalling system & power supply failures	87,238	0.11
302B	Other signal equipment failures	14,764	0.02
303	Telephone failures	5,556	0.01
304	Cable faults (signalling & telecoms)	22,676	0.03
304A	Change of aspects-no fault found	1,813	0.00
305	Track circuit failures - leaf fall	845	0.00
401	Bridge strikes	37,610	0.05
402	External infrastructure damage - vandalism/theft	78,876	0.10
403	External level crossing/road incidents (not bridges)	8,578	0.01
501	Railtrack Production responsibility	142,627	0.18
502A	Railtrack Commercial: train Planning	200,892	0.25
502B	Railtrack Commercial responsibility: other	6,795	0.01
502C	Railtrack Commercial: dispute take-back	50,363	0.06
503	External fatalities and trespass	78,132	0.10
504	External police on line/security alerts	5,019	0.01
505	External fires	4,181	0.01
506	External other	51,799	0.06
601	Unexplained	41,122	0.05
Total		**4,435,557**	**5.53**
Train km		**80,140,913**	

* New category introduced: data may not fully reflect the impact of delays due to this cause

Table 8	NORTH WEST delays to passenger & freight trains by detailed cause category – 2000/01		
No	Category	Train delay minutes	Train delay minutes per 100 train km
101	Points failures	68,221	0.13
102	Problems with trackside signs, TSR boards	6,777	0.01
103	Level crossing failures	6,599	0.01
104A	TSRs due to condition of track	109,515	0.21
104B	Broken rails/track faults	117,688	0.23
104C	Gauge corner cracking	373,245	0.73
105	Lineside structure defects	87,000	0.17
106	Other infrastructure	84,290	0.17
107A	Possession over-run and related faults	31,032	0.06
107B	Possession work left incomplete	18,411	0.04
108	Mishap - infrastructure causes	2,474	0.00
109	Animals on line	27,301	0.05
110	External weather impact	70,594	0.14
111A	Wheel slip due to leaf fall	11,073	0.02
111B	Vegetation management failure*	21	0.00
112	Fires starting on Railtrack infrastructure	4,208	0.01
150	Railtrack share of industry leaf-fall/adhesion delays	101,519	0.20
201	Overhead line/Third rail faults	37,351	0.07
301A	Signal failures	34,391	0.07
301B	Track circuit failures	95,156	0.19
302A	Signalling system & power supply failures	25,012	0.05
302B	Other signal equipment failures	7,517	0.01
303	Telephone failures	2,816	0.01
304	Cable faults (signalling & telecoms)	21,847	0.04
304A	Change of aspects-no fault found	1,046	0.00
305	Track circuit failures - leaf fall	319	0.00
401	Bridge strikes	22,903	0.04
402	External infrastructure damage - vandalism/theft	70,491	0.14
403	External level crossing/road incidents (not bridges)	3,296	0.01
501	Railtrack Production responsibility	78,331	0.15
502A	Railtrack Commercial: train Planning	52,253	0.10
502B	Railtrack Commercial responsibility: other	9,449	0.02
502C	Railtrack Commercial: dispute take-back	49,353	0.10
503	External fatalities and trespass	44,547	0.09
504	External police on line/security alerts	6,672	0.01
505	External fires	4,804	0.01
506	External other	17,124	0.03
601	Unexplained	49,672	0.10
Total		**1,754,318**	**3.44**
Train km		**51,001,284**	

* New category introduced: data may not fully reflect the impact of delays due to this cause

Table 9	SCOTLAND delays to passenger & freight trains by detailed cause category – 2000/01		
No	Category	Train delay minutes	Train delay minutes per 100 train km
101	Points failures	80,776	0.19
102	Problems with trackside signs, TSR boards	3,588	0.01
103	Level crossing failures	6,898	0.02
104A	TSRs due to condition of track	24,717	0.06
104B	Broken rails/track faults	56,832	0.13
104C	Gauge corner cracking	329,994	0.76
105	Lineside structure defects	48,841	0.11
106	Other infrastructure	12,159	0.03
107A	Possession over-run and related faults	12,814	0.03
107B	Possession work left incomplete	2,810	0.01
108	Mishap - infrastructure causes	3,474	0.01
109	Animals on line	13,566	0.03
110	External weather impact	48,179	0.11
111A	Wheel slip due to leaf fall	3,974	0.01
111B	Vegetation management failure*	228	0.00
112	Fires starting on Railtrack infrastructure	105	0.00
150	Railtrack share of industry leaf-fall/adhesion delays	3,370	0.01
201	Overhead line/Third rail faults	23,377	0.05
301A	Signal failures	29,786	0.07
301B	Track circuit failures	55,454	0.13
302A	Signalling system & power supply failures	23,876	0.05
302B	Other signal equipment failures	4,376	0.01
303	Telephone failures	1,915	0.00
304	Cable faults (signalling & telecoms)	5,567	0.01
304A	Change of aspects-no fault found	28	0.00
305	Track circuit failures - leaf fall	389	0.00
401	Bridge strikes	11,558	0.03
402	External infrastructure damage - vandalism/theft	28,676	0.07
403	External level crossing/road incidents (not bridges)	4,686	0.01
501	Railtrack Production responsibility	45,895	0.11
502A	Railtrack Commercial: train Planning	36,156	0.08
502B	Railtrack Commercial responsibility: other	1,811	0.00
502C	Railtrack Commercial: dispute take-back	9,151	0.02
503	External fatalities and trespass	28,158	0.06
504	External police on line/security alerts	2,663	0.01
505	External fires	1,298	0.00
506	External other	12,995	0.03
601	Unexplained	37,210	0.09
Total		**1,017,350**	**2.34**
Train km		**43,452,392**	

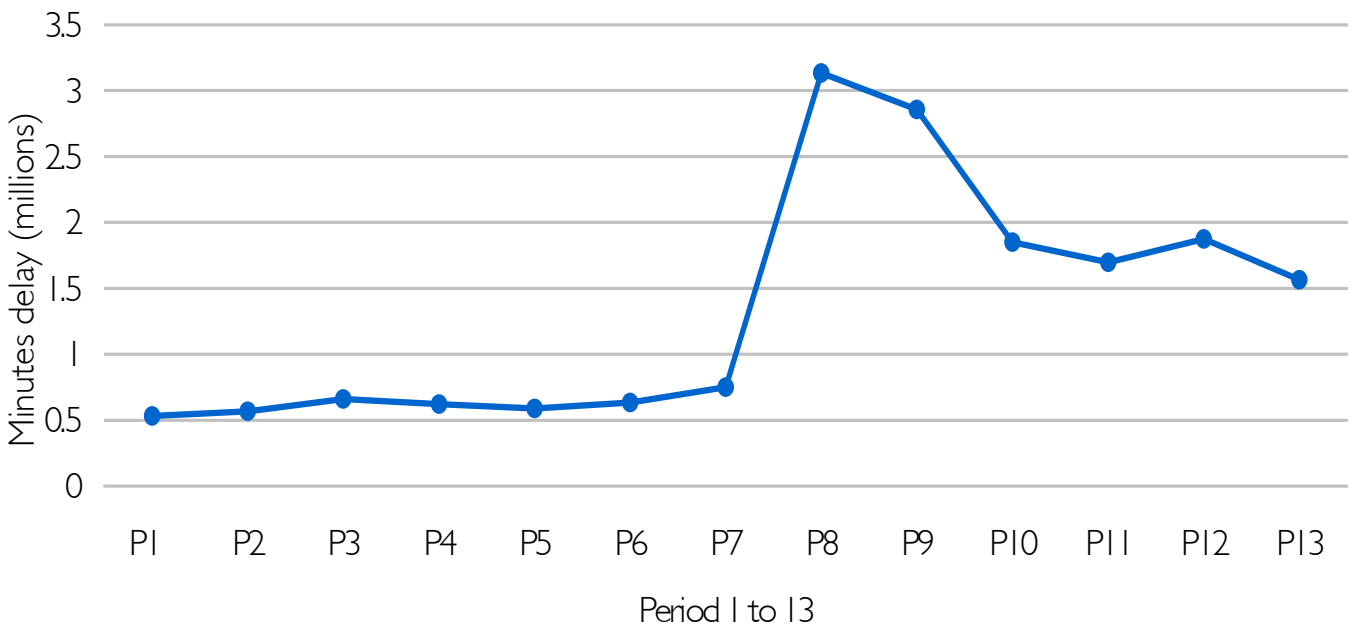
* New category introduced: data may not fully reflect the impact of delays due to this cause

Table 10	SOUTHERN delays to passenger & freight trains by detailed cause category – 2000/01		
No	Category	Train delay minutes	Train delay minutes per 100 train km
101	Points failures	202,854	0.20
102	Problems with trackside signs, TSR boards	1,171	0.00
103	Level crossing failures	22,361	0.02
104A	TSRs due to condition of track	7,430	0.01
104B	Broken rails/track faults	164,997	0.16
104C	Gauge corner cracking	336,145	0.32
105	Lineside structure defects	148,337	0.14
106	Other infrastructure	102,065	0.10
107A	Possession over-run and related faults	27,791	0.03
107B	Possession work left incomplete	11,760	0.01
108	Mishap - infrastructure causes	3,062	0.00
109	Animals on line	12,363	0.01
110	External weather impact	262,225	0.25
111A	Wheel slip due to leaf fall	40,543	0.04
111B	Vegetation management failure*	1,413	0.00
112	Fires starting on Railtrack infrastructure	18,082	0.02
150	Railtrack share of industry leaf-fall/adhesion delays	128,975	0.12
201	Overhead line/Third rail faults	68,770	0.07
301A	Signal failures	98,371	0.09
301B	Track circuit failures	343,004	0.33
302A	Signalling system & power supply failures	80,364	0.08
302B	Other signal equipment failures	4,406	0.00
303	Telephone failures	3,790	0.00
304	Cable faults (signalling & telecoms)	15,875	0.02
304A	Change of aspects-no fault found	5,924	0.01
305	Track circuit failures - leaf fall	2,633	0.00
401	Bridge strikes	50,432	0.05
402	External infrastructure damage - vandalism/theft	64,672	0.06
403	External level crossing/road incidents (not bridges)	18,834	0.02
501	Railtrack Production responsibility	357,207	0.34
502A	Railtrack Commercial: train Planning	94,003	0.09
502B	Railtrack Commercial responsibility: other	12,411	0.01
502C	Railtrack Commercial: dispute take-back	112,216	0.11
503	External fatalities and trespass	106,618	0.10
504	External police on line/security alerts	59,815	0.06
505	External fires	3,489	0.00
506	External other	28,300	0.03
601	Unexplained	293,539	0.28
Total		**3,316,247**	**3.19**
Train km		**103,810,091**	

* New category introduced: data may not fully reflect the impact of delays due to this cause

Table 11	Delay minutes to all trains split by zones and by four-weekly period – 2000/01							
Zone	East Anglia	Great Western	London North Eastern	Midlands	North West	Scotland	Southern	National Total
P1	48,642	65,843	75,571	118,466	64,579	47,767	109,712	530,580
P2	44,306	66,588	84,896	119,834	81,745	39,595	130,109	567,073
P3	69,963	69,480	111,533	149,790	69,838	37,721	151,605	659,930
P4	42,250	93,881	75,819	159,575	60,729	33,562	157,054	622,870
P5	58,592	68,951	81,437	164,033	62,329	34,428	118,438	588,208
P6	68,839	55,666	103,714	139,712	78,086	51,617	135,294	632,928
P7	71,268	85,044	104,886	156,162	82,411	40,008	211,968	751,747
P8	439,110	335,435	426,293	774,721	323,299	156,115	679,193	3,134,166
P9	359,136	346,408	478,955	709,481	294,830	141,954	526,347	2,857,111
P10	109,190	294,573	278,920	529,517	176,373	109,220	353,834	1,851,627
P11	138,378	238,151	336,996	519,393	136,369	89,883	237,268	1,696,438
P12	195,162	287,027	363,541	448,145	157,561	130,662	292,601	1,874,699
P13	120,126	229,977	284,842	446,728	166,169	104,818	212,824	1,565,484
Year total	**1,764,962**	**2,237,024**	**2,807,403**	**4,435,557**	**1,754,318**	**1,017,350**	**3,316,247**	**17,332,861**

Figure 1 Delays to all trains by four-weekly period - 2000/01



Section 2 – Asset Condition and Serviceability

Number of Broken Rails

Description

A broken rail is one which, before removal from the track, has a fracture through the full cross-section, or a piece broken out of it, rendering it unserviceable. This includes broken welds.

Results

Table 12 Number of Broken Rails

	1997/98 Actual	1998/99 Actual	1999/00 Actual	2000/01 Target	2000/01 Actual
East Anglia	-	-	-	-	63
Great Western	-	-	-	-	98
London North Eastern	-	-	-	-	161
Midlands	-	-	-	-	129
North West	-	-	-	-	110
Scotland	-	-	-	-	51
Southern	-	-	-	-	94
Network total	**755**	**952**	**919**	**765**	**706**

Notes

The zonal figures have been adjusted to reflect recent boundary changes.

The regulatory target is for a reduction in broken rails from 765 in 2000/01 to 615 in 2005/06. The regulatory targets are not split by zones.

Commentary

Broken rails are those that fail in service with a fracture through the full cross-section or with a piece broken out rendering them unserviceable. These rails are subsequently removed from the track and a section of new rail inserted. Although few broken rails lead to derailments, all cases represent a safety risk, therefore the fewer the number the lower the risk.

In 1999 we introduced a major programme to reduce the number of broken rails following the sharp increase in 1998/99. The work included more frequent ultrasonic testing, more rail grinding, more stone blowing, increased re-railing, cold bolt hole expansion and additional re-ballasting. More Wheelchex equipment has also been introduced to measure wheel loads in traffic and so manage out high impact loads resulting from wheel flats and 'out of round' wheels. These actions have been effective.

There were 706 broken rails in 2000/01. This represents a 23% reduction on the previous year and was 8% below the national regulatory target.

Number of Rail Defects

Description

A rail defect is a rail that has to be removed prematurely from the track or repaired in situ due to the presence of a crack, mechanical damage, corrosion, wheel burn or other defect that renders it unserviceable.

Results

Table 13 Remaining rail defects

	2000/01 Isolated defects (number)	2000/01 Continuous defects (yards)
Network total	31,090	1,146,345

Commentary

This Annual Return shows the number of rail defects that were remaining at 31 March 2001. Isolated rail defects are reported as absolute numbers, and continuous defects (which are primarily due to Gauge Corner Cracking) are reported in yards.

Rail defects are detected by ultrasonic testing and visual inspection. Once detected, a defect is allocated a maximum time before action has to be taken to remove it (depending on type and location of defect). The existence of each defect is monitored until it is removed.

We have identified that the process for collecting data centrally on rail defects is not robust. Work is in progress to improve the data gathering process and this will enable the 2002 Annual Return to give a greater degree of analysis. We are confident that the processes for identifying, monitoring and rectifying individual rail defects within each contract area are satisfactory though the process for reporting the data has needed improvement.

The Regulator has set no target for this measure in control period 2 to avoid any disincentive to discover defects.

Track Geometry – Standard Deviation

Description and results

Track geometry is measured regularly using special recording vehicles. Track geometry, in conjunction with rolling stock design and performance, determines ride quality. The measures of track geometry are used to identify sections of track which require remedial work and to support decisions on when renewal work should be undertaken. The recording vehicles are scheduled to cover all track with a line speed of 25mph or more at least once a year.

Results are presented graphically for track in each speed band. The graphs show the standard deviation (in mm) by which the rail position deviates from its design position. The standard deviation provides a statistical summary of around 800 readings for every 200m of track. It indicates the spread of measurements around the mean and falls within the range of 0.1 to 10mm. The graphs show the following for each speed band:

- Vertical alignment (also known as 'Rail Top Profile').
  This shows how much the track deviates up and down from its design vertical position.
- Horizontal alignment (also known as 'Track Alignment').
  This shows how much the track deviates horizontally from its design centre position.

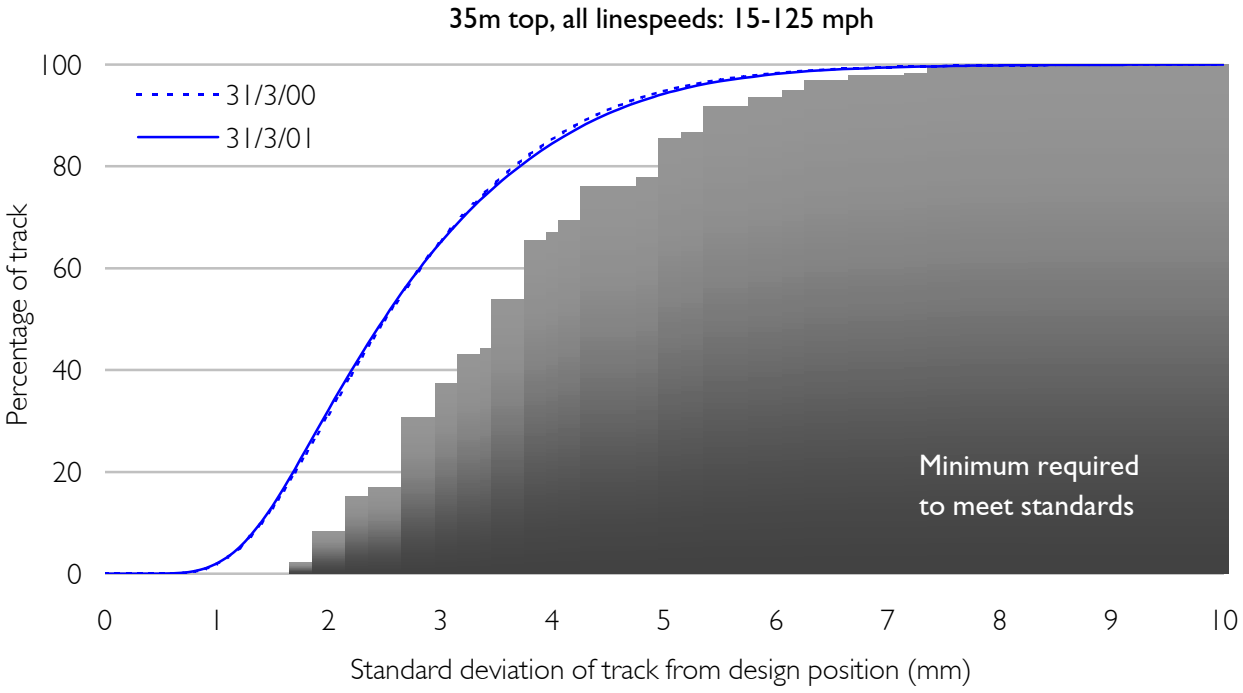
The graphs show the cumulative percentage of track which falls within each standard deviation. A larger percentage falling under low standard deviations (towards the left of the graph) indicates less variation in track geometry. Where applicable, separate graphs are shown for 70m and 35m wavelength filter measurements.

The recommended standard for track geometry is shown as a shaded area on each graph. If the track is better than the recommendation set by the standard, the S-shaped curve will lie to the left of the shaded area. The compliance factor is also quoted under each graph. This is a measure of the overall compliance against standards for the geometry shown in that graph. It often exceeds 100% as the majority of track is better than the standards by a significant margin and only a small proportion fails to meet them.

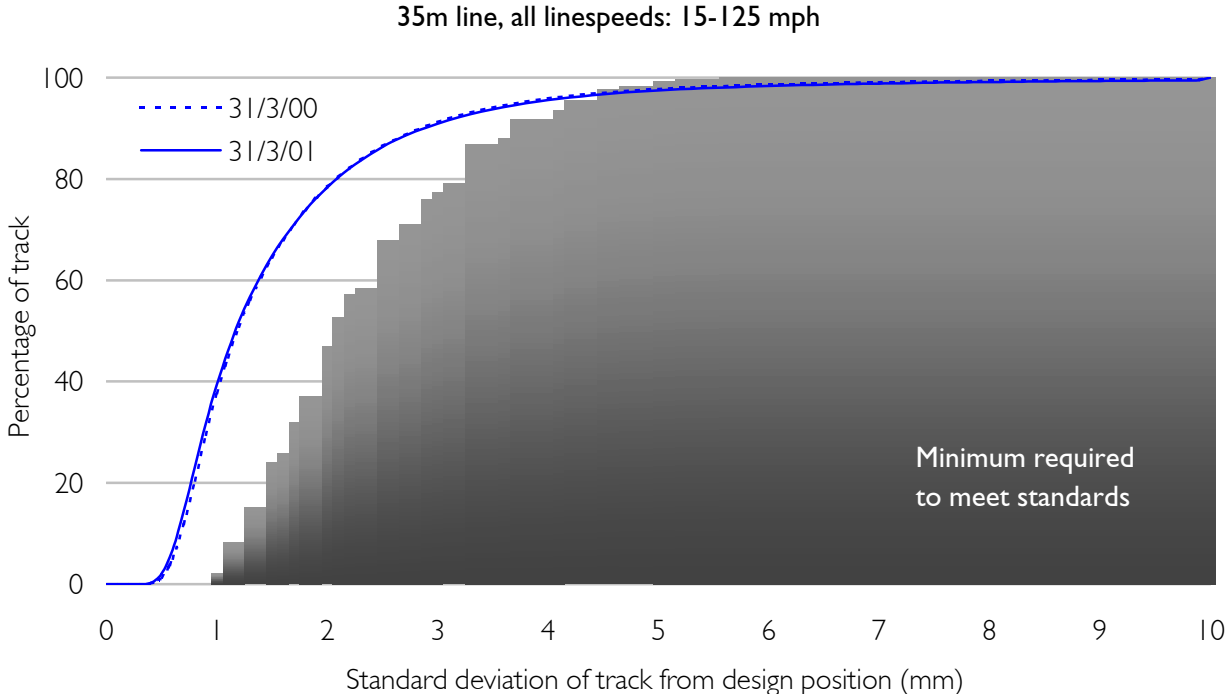
The recommended standard is not safety related. It is a standard against which maintenance contracts can be set and vehicles can be designed, to give a particular ride quality. A complex interaction between vehicle construction and track geometry determines the quality of ride experienced by passengers.

Data for line speeds below 20 mph suffers from limitations of the track recording system. At such low speeds, track recording vehicles operate at the limit of current alignment measuring technology because the optical measuring system relies heavily on a well polished rail head for accurate recording that is often not available on less frequently used routes. This effect is seen on the 15-40 mph, 35m line graph where there is a relatively high proportion of non-compliant track.

Figure 2 National track geometry results: All speed bands

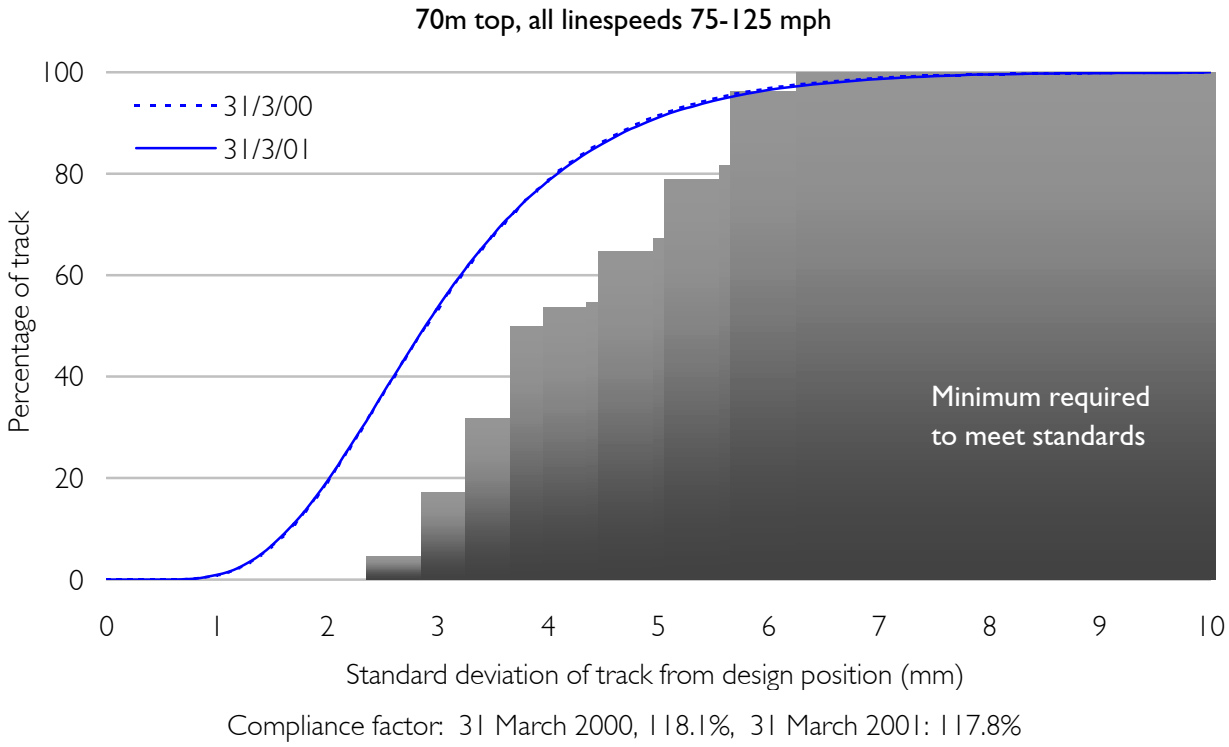


Compliance factor: 31 March 2000, 114.3%, 31 March 2001: 114.2%

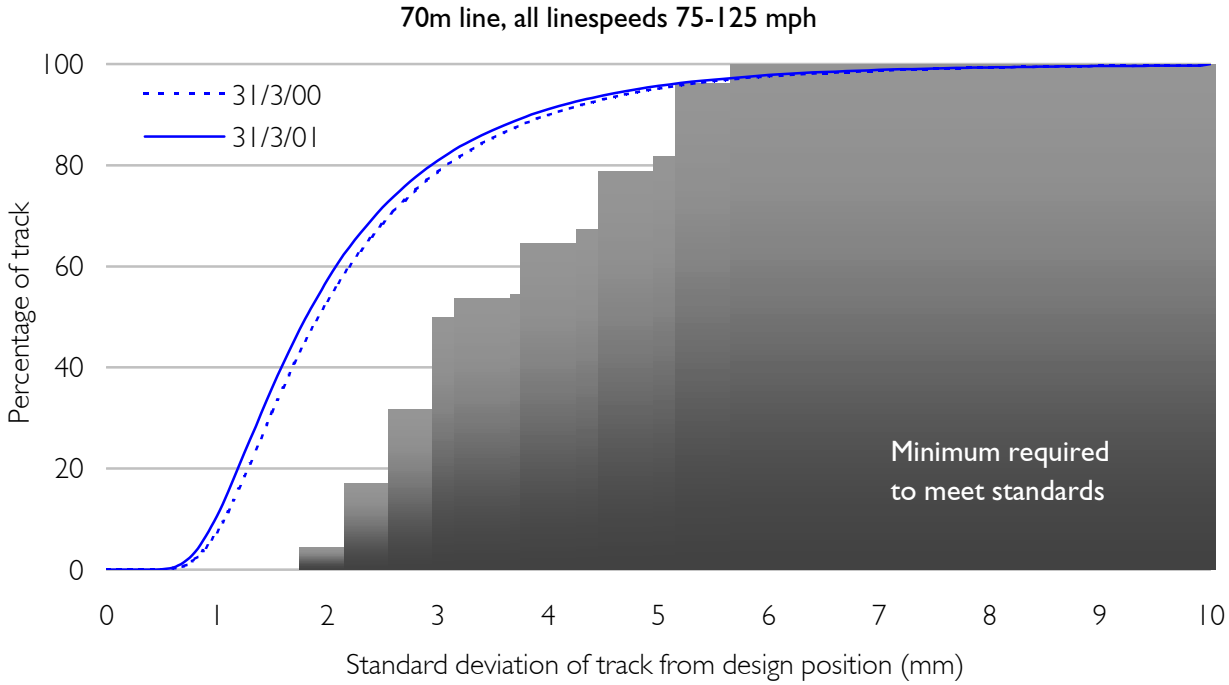


Compliance factor: 31 March 2000, 109.4%, 31 March 2001: 109.4%

Figure 3 High speed lines track geometry results: 75-125mph

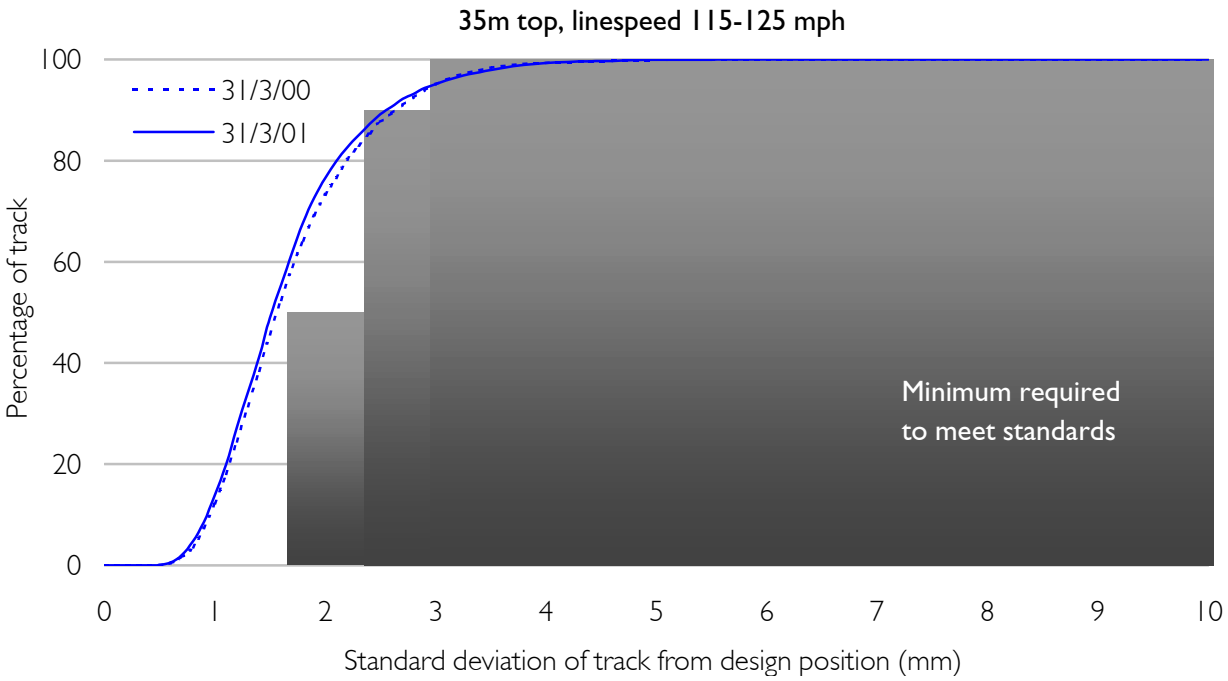


Compliance factor: 31 March 2000, 118.1%, 31 March 2001: 117.8%

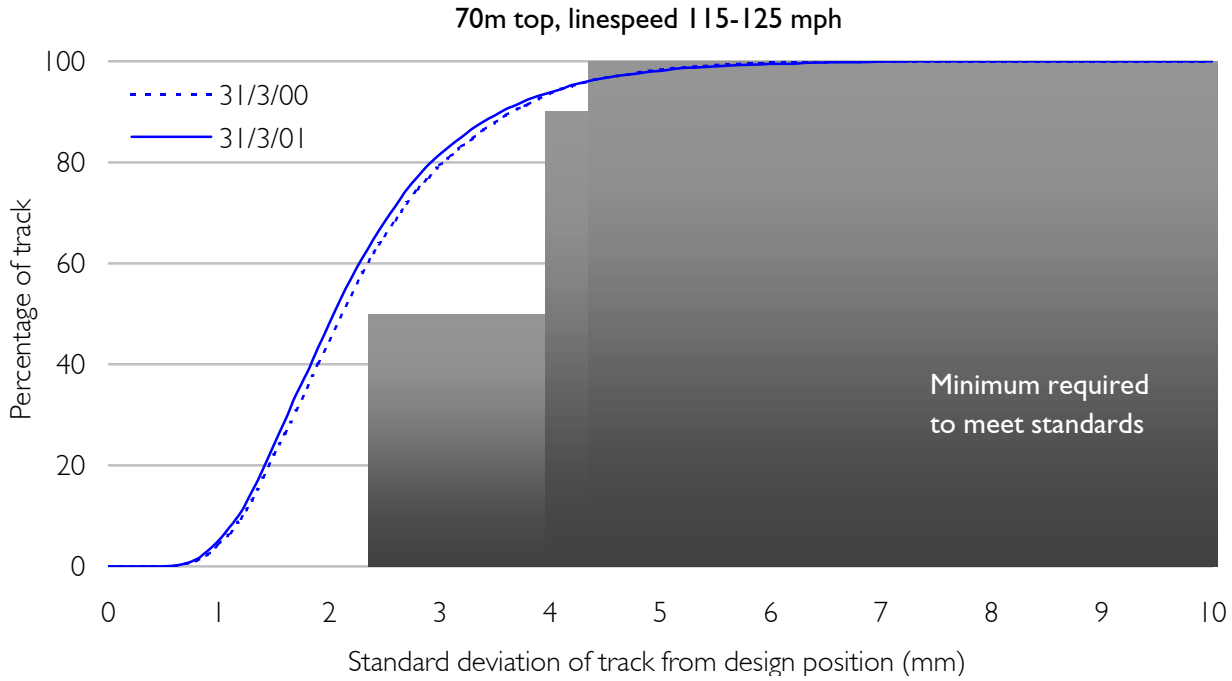


Compliance factor: 31 March 2000, 118.8%, 31 March 2001: 120.4%

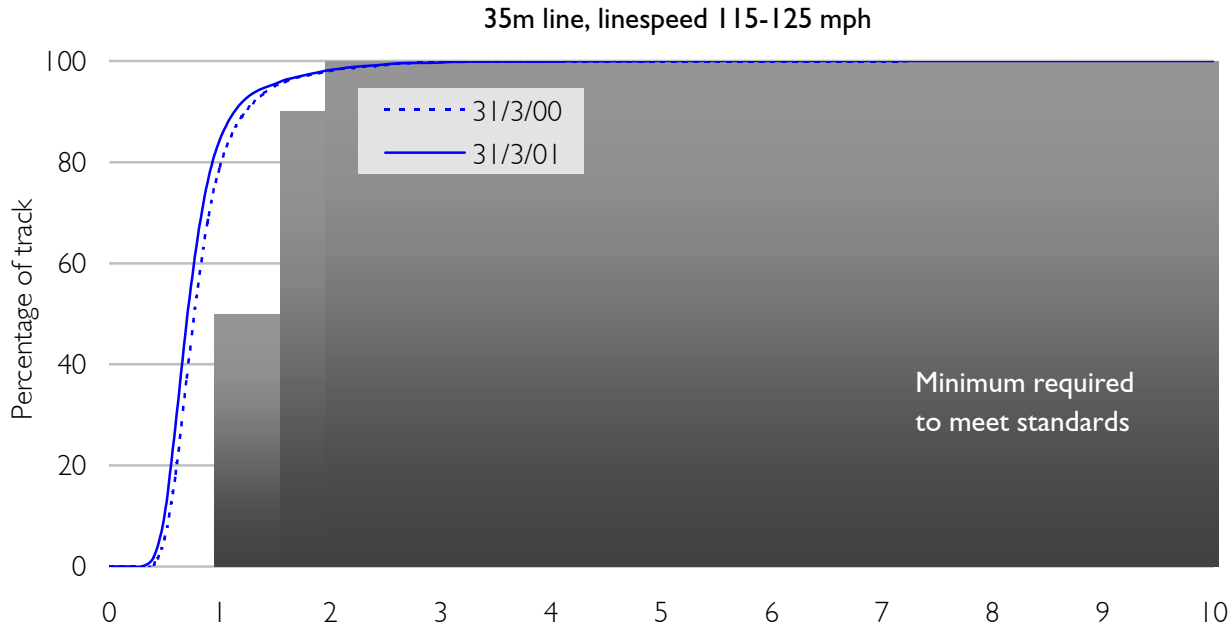
Figure 4 Track geometry results by speed band: 115-125mph



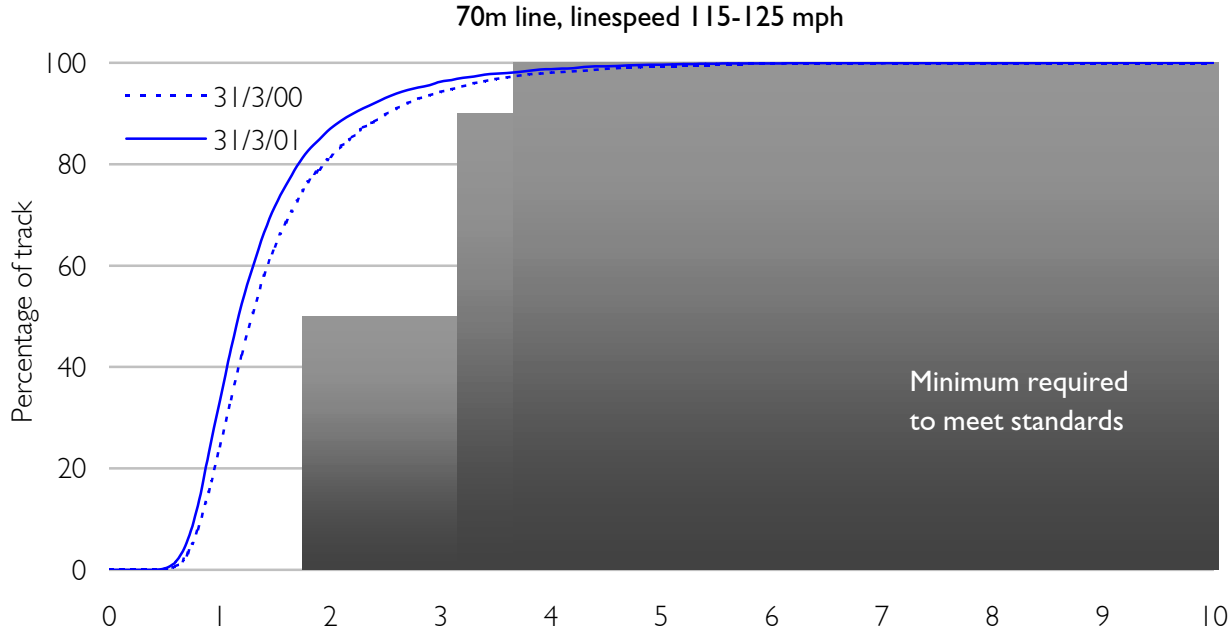
Compliance factor: 31 March 2000, 104.6%, 31 March 2001: 105.1%



Compliance factor: 31 March 2000, 113.0%, 31 March 2001: 113.9%

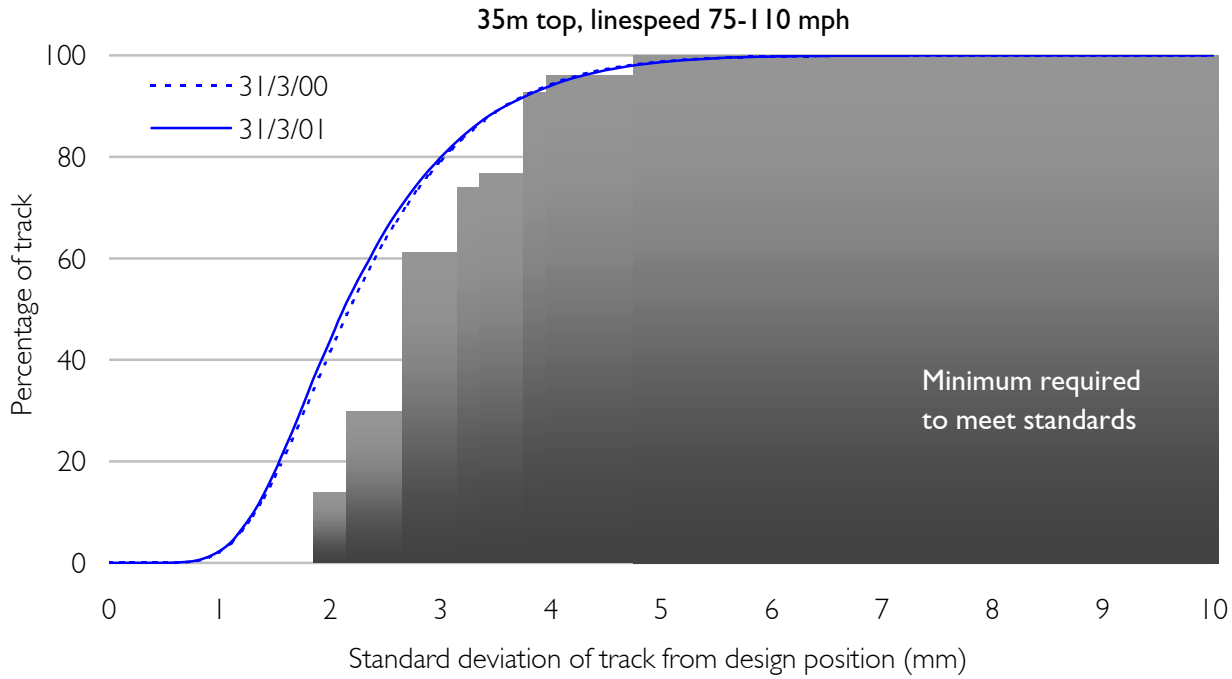


Compliance factor: 31 March 2000, 105.0%, 31 March 2001: 105.7%

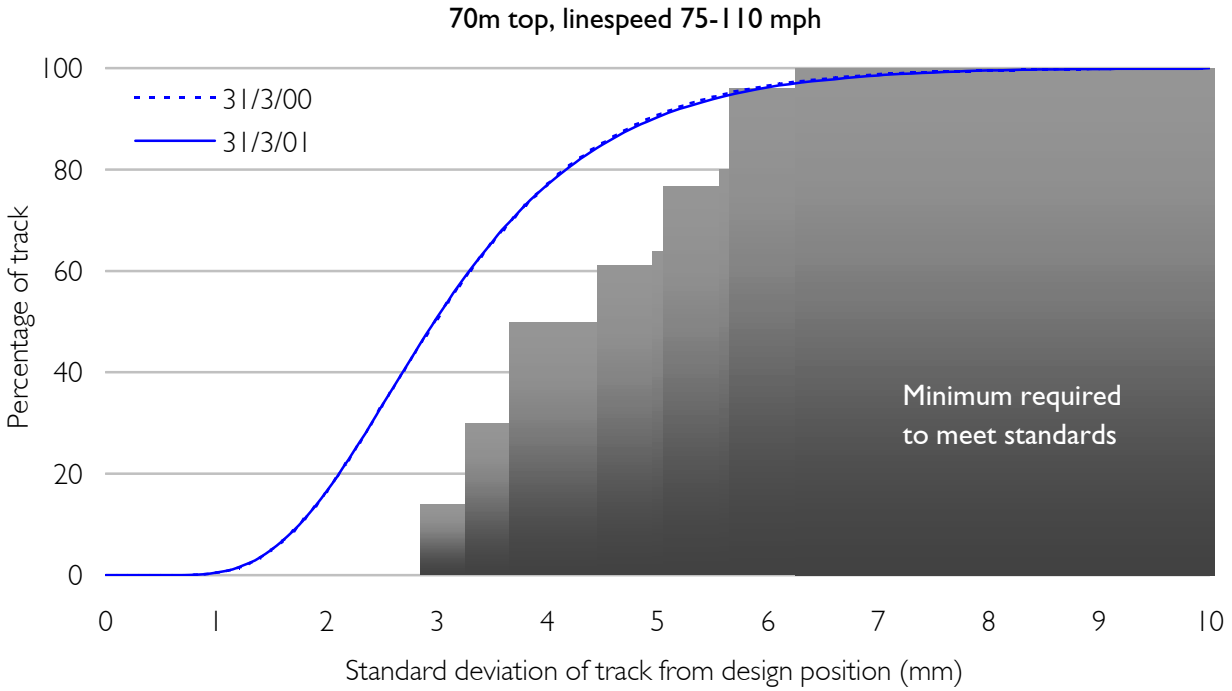


Compliance factor: 31 March 2000, 112.9%, 31 March 2001: 114.9%

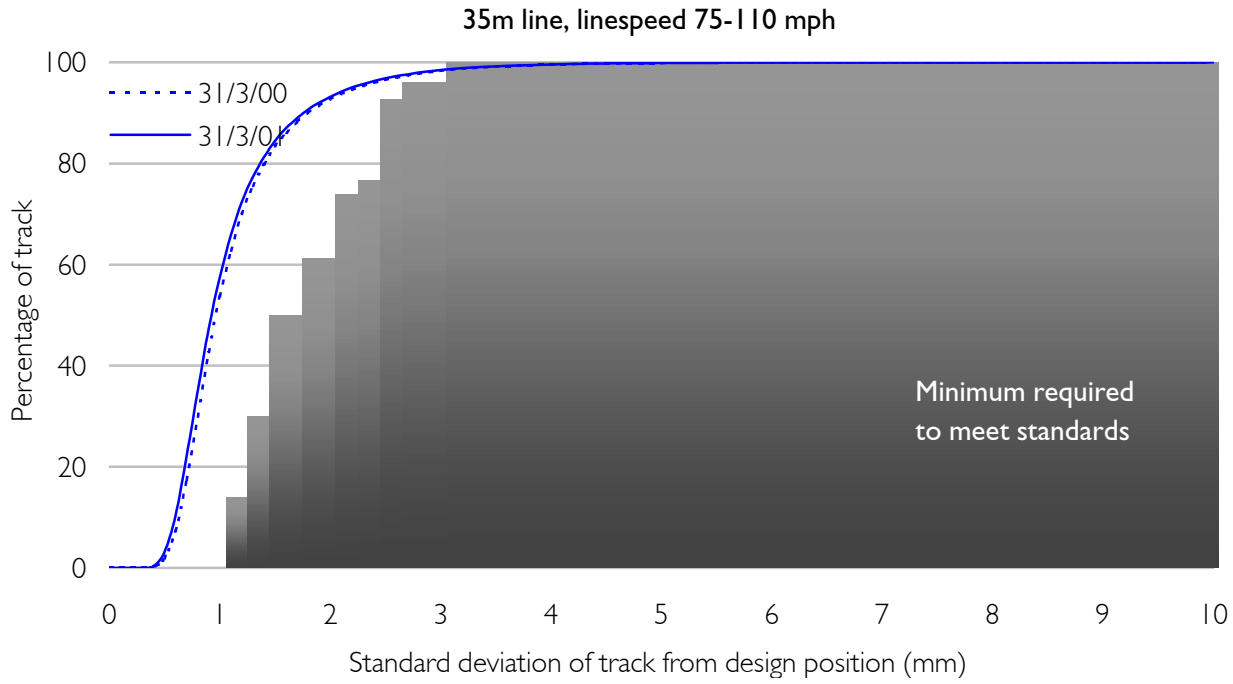
Figure 5 Track geometry results by speed band: 75-110mph



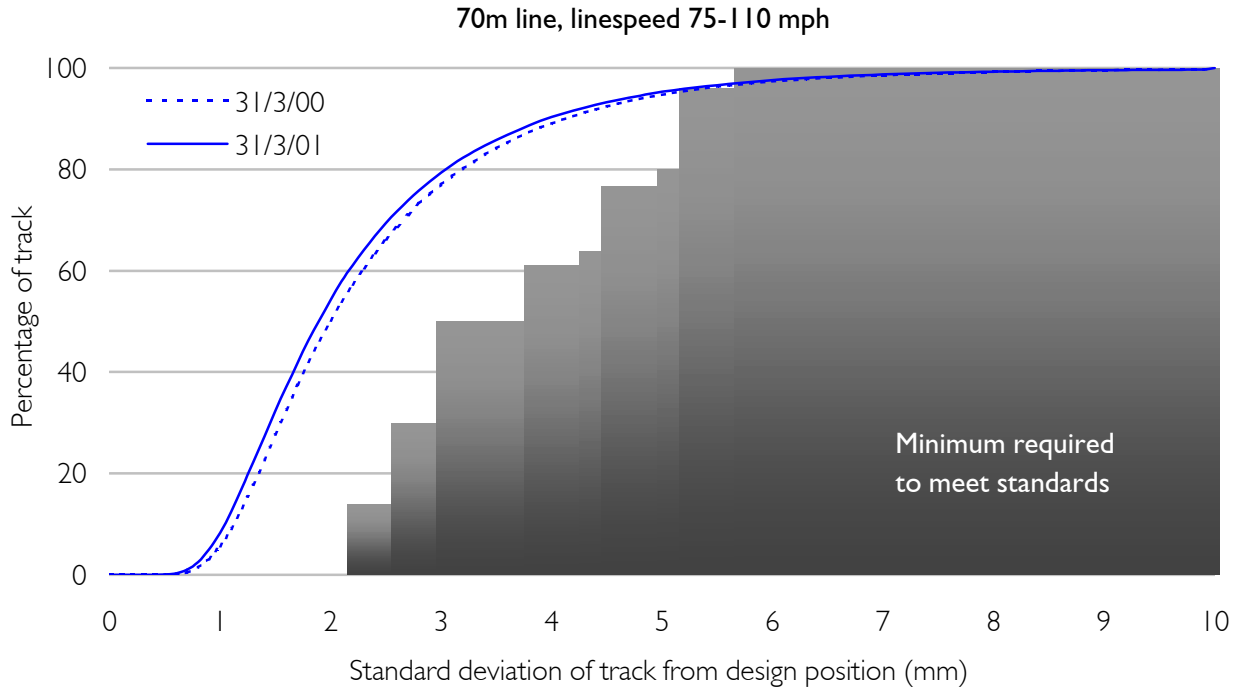
Compliance factor: 31 March 2000, 107.1%, 31 March 2001: 107.4%



Compliance factor: 31 March 2000, 118.6%, 31 March 2001: 118.3%

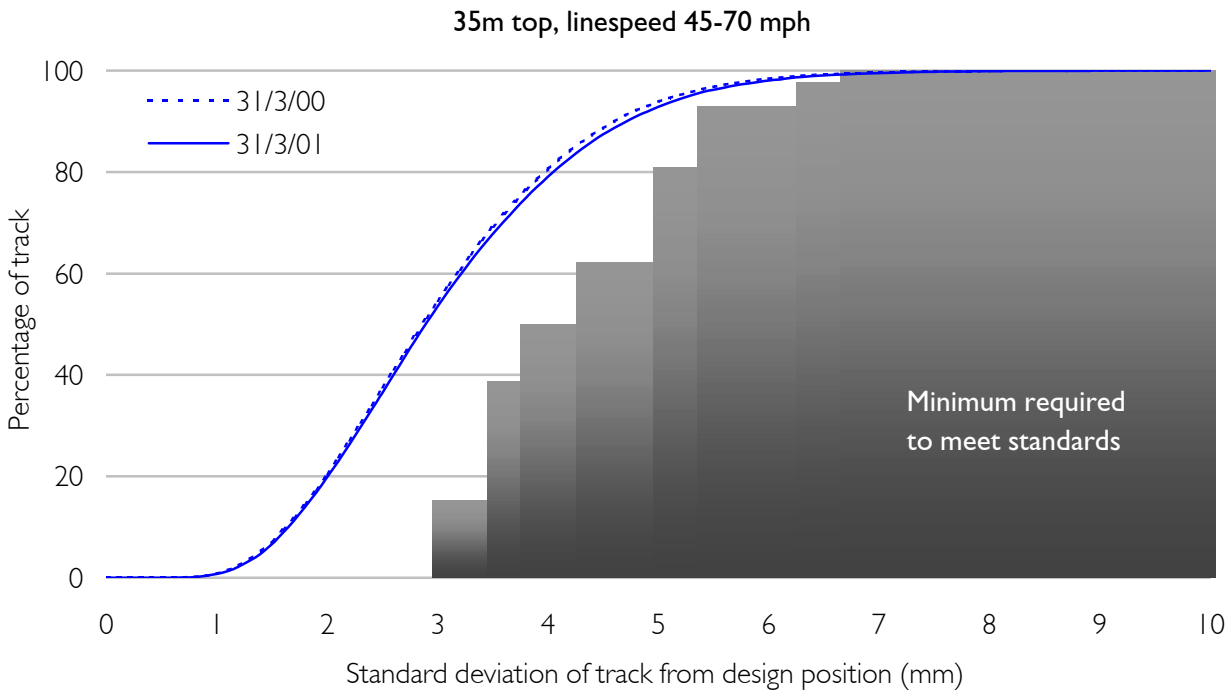


Compliance factor: 31 March 2000, 107.7%, 31 March 2001: 108.1%

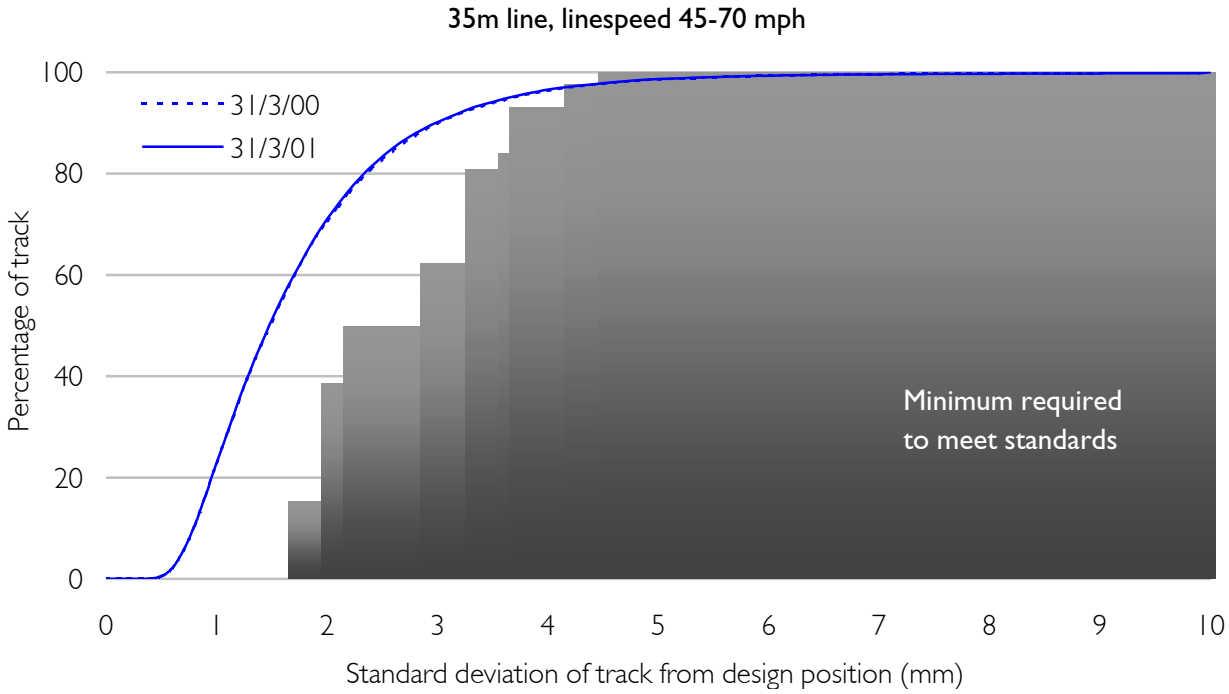


Compliance factor: 31 March 2000, 119.4%, 31 March 2001: 120.9%

Figure 6 Track geometry results by speed band: 45-70mph

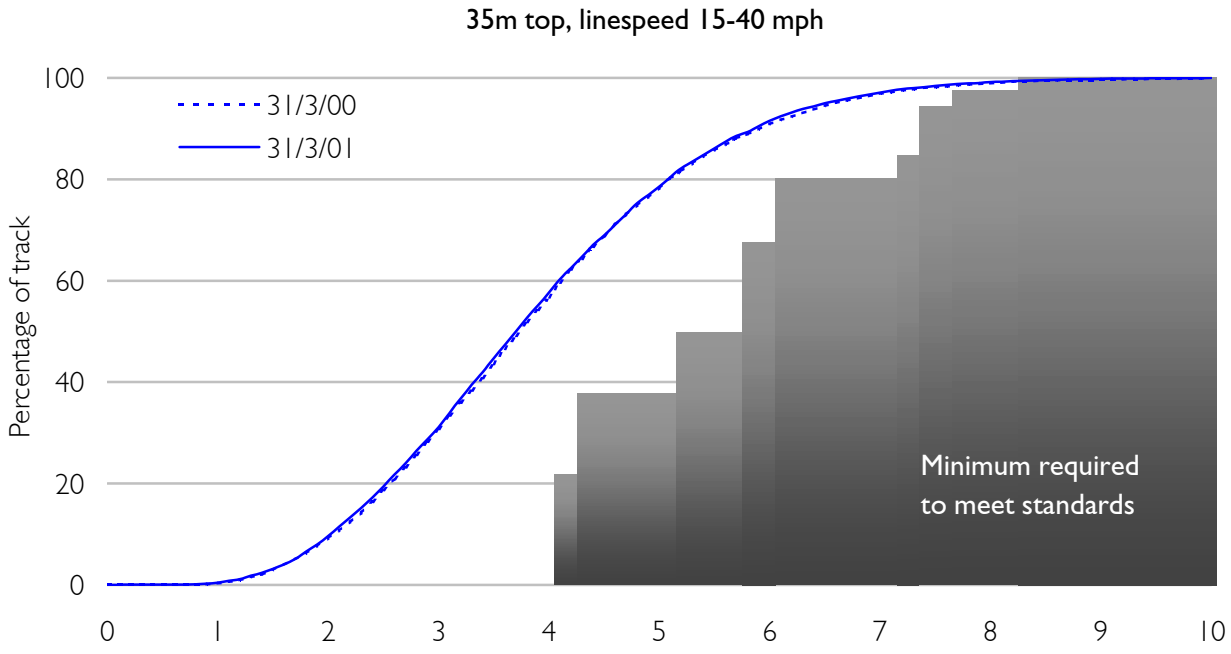


Compliance factor: 31 March 2000, 120.5%, 31 March 2001: 119.8%

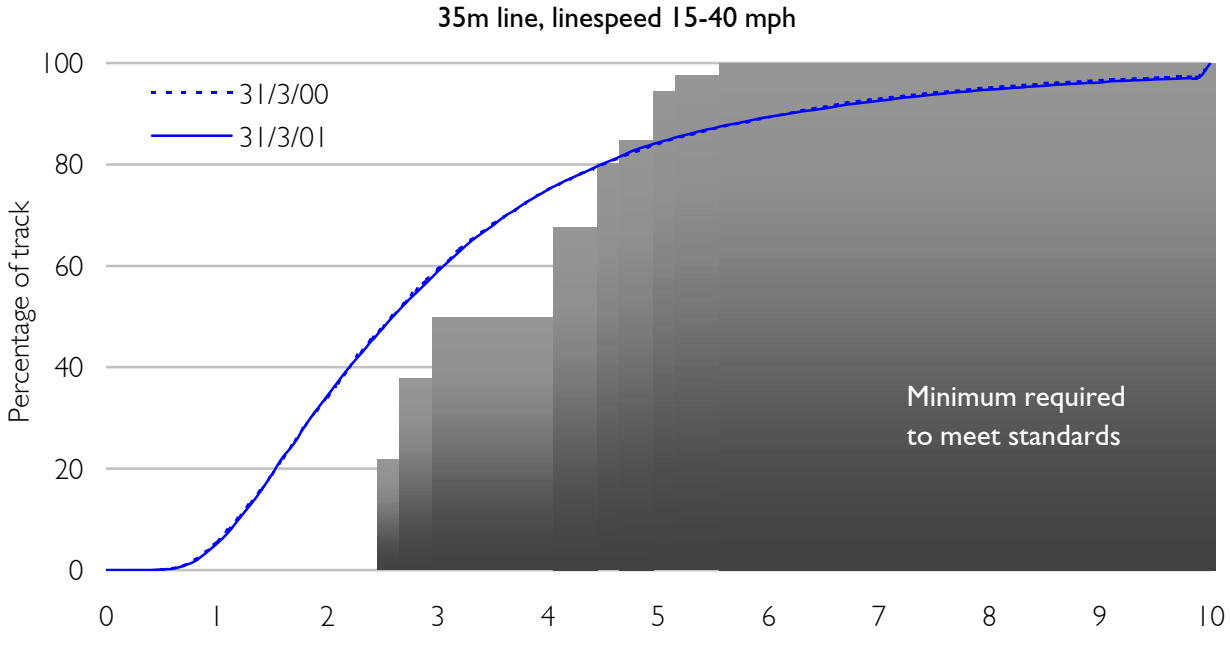


Compliance factor: 31 March 2000, 112.0%, 31 March 2001: 112.2%

Figure 7 Track geometry results by speed band: 15-40mph



Compliance factor: 31 March 2000, 133.4%, 31 March 2001: 134.6%



Compliance factor: 31 March 2000, 105.8%, 31 March 2001: 105.8%

Regulatory track geometry targets

There are 2 elements to the track geometry targets agreed with the Regulator:

- to reduce as far as reasonably practicable the amount of track not yet achieving the 100% standard, as quantified by the target percentages stated in the table below.
- to ensure that the amount of track meeting the 50% and 90% standards is not less than the amounts which met those standards on 1 April 1994. The target percentages stated below are the levels which should have been recorded by the end of 2000/01 (taking account of the recording lag of up to 12 months).

Table 14 Track geometry targets agreed with the Regulator and actual values for 2000/01

	35m Top (Vertical deviation)			35m Alignment (Horizontal deviation)			70m Top (Vertical deviation)			70m Alignment (Horizontal deviation)		
Standards	50%	90%	100%	50%	90%	100%	50%	90%	100%	50%	90%	100%
Target agreed with the Regulator	64.6%	90.3%	98.1%	70.9%	91.6%	97.1%	62.5%	92.8%	97.4%	64.7%	91.9%	96.9%
Measured position reported at March 2001	61.3%	89.0%	96.8%	72.4%	92.6%	96.1%	61.4%	92.2%	95.4%	74.4%	94.6%	96.1%

Commentary on track geometry results

Significant progress has been made in improving track geometry over the last few years despite the increase in traffic on the network (around 30% since 1995) and the consequential reduction in access for maintenance. On the basis of data collected last year, we had not reached the target for some of the measures, though due to the operating frequency of track recording vehicles there is a lag between the accumulated data on track geometry measured up to March 2001 and the true position at that date. Actual progress against the target set will therefore not be fully known until later.

The exceptionally wet weather over the last year and the disruptive effects of the National Recovery Programme following the Hatfield derailment hampered progress in 2000/01. The target is proving to be much more challenging than we had previously expected but we remain committed to continuing to improve track geometry and have already increased the volume of ballast renewal and track maintenance work. Last year we also upgraded our two existing track geometry recording vehicles and introduced a third, and later this year we plan to let a contract for a new generation of track inspection vehicles. These will give better information, to allow us to plan track geometry remedial work more efficiently.

Temporary Speed Restrictions

Description

The regulatory measure for Temporary Speed Restrictions (TSRs) has changed. The previous definition of TSRs, published in the NMS, referred to speed restrictions imposed outside of Rules of the Route, but Railtrack and ORR agreed that this was not a good measure of the underlying asset condition and so a new measure was agreed.

The new measure reports the annual number of TSRs due to condition of track, structures, and earthworks that are in place for more than 4 weeks. The number includes emergency speed restrictions, those TSRs which are allowed for within the Rules of the Route, and TSRs published in the Weekly Operating Notices. The severity of TSRs is calculated using an agreed formula. These measures give an indication of those locations where the condition of the track or its substructure have deteriorated to the extent that trains cannot be allowed to run at full line speed.

Commentary

The definitions for 'Numbers of track, structures, and earthworks TSRs' are different from previous years, and 'Severity' is a new measure. Recording of these measures has commenced from the start of 2001/02 and the results will be reported in the 2002 Annual Return.

Data for the old measure of condition of track TSRs shows the consequences of GCC and the subsequent recovery programme. After the Hatfield accident there was a dramatic increase in the number of condition of track TSRs. Thereafter the number declined gradually, but by the end of the year was still much higher than at the start of the year.

The Regulator has not set a target for this measure in control period 2 so there is no disincentive to applying a TSR when it is judged to be necessary on safety grounds.

Track Geometry - Level 2 Exceedences

Description

Track Geometry (Level 2 Exceedence) is a measure of the difference in the actual rail position from the 'ideal' position. It is based on the same set of measurements as are used for standard deviation discussed earlier. Maximum desirable values for the variance between the actual and ideal rail position are set in Railtrack Company Standards for various parameters (top, line, gauge and 3m twist), and for different line speeds and total annual tonnage. Values greater than the desirable variance are called Level 2 Exceedences. Data for this measure is reported as the number of Level 2 Exceedences per track mile (to include top, line, gauge and 3m twist). Level 2 Exceedences require remedial work within defined timescales specified in Railtrack Company Standards.

Results

Table 15 Level 2 Exceedences per track mile

Zone	2000/01 Actual number per mile
East Anglia	1.863
Great Western	1.732
London North Eastern	1.658
Midland	1.746
North Western	2.385
Scotland	1.431
Southern	1.899
Network total	**1.803**

Commentary

The network total has improved from 1.944 in 1999/2000 to 1.803 in the report year. There was no regulatory target for 2000/01 but performance was better than Railtrack's own target of 1.892. The Regulator's target for control period 2 is for there to be no deterioration from the network total reported above.

Slope Failures Causing Derailment

Description

This measure reports details of the annual number of embankment or cutting failures causing a passenger or freight train derailment on Running Lines.

Results

Table 16 Slope failures causing derailment

Zone	Date	Location	Description
Great Western	04/07/00	Patchway	Cutting slip. Passenger train.
Scotland	10/10/00	Glenluce (Craig L.C)	Culvert blockage & embankment washout. Passenger train
Southern	08/12/00	Honiton	Cutting slip. Empty passenger train coaching stock.

Commentary

The three slope failures causing derailment were all the result of high groundwater levels or embankment washouts following heavy rainfall. We are currently carrying out a risk evaluation of all significant earthworks to enable inspection and remedial work to be focused on the highest risk sites.

Bridge Condition Index

Description

The bridge condition grade is a measure from 1 to 5 of the condition of bridges, with 1 representing good condition and 5 poor condition. Each bridge is graded from a Structures Condition Marking Index (SCMI) value determined using the scoring tool set out in the SCMI handbook. The SCMI process is a marking methodology that grades the condition of each bridge on a 1-100 scale and involves defining the elements of the bridge and determines the extent and severity of any defect in each of the elements.

Results

The reported measure consists of the number of bridge spans examined that fall into each of the 5 condition grades.

Table 17 Bridge condition index

Bridge condition grade	Equivalent SCMI value	2000/01 actual No. of spans
1	80-100	141
2	60-79	648
3	40-59	210
4	20-39	16
5	1-19	0
Average condition grade		2.1

Commentary

A baseline for the average condition grade will be progressively established during the second control period once a sufficient sample size has been achieved.

A survey of 1015 bridges was made in 1999/2000 and 2000/01. All our bridges will receive a SCMI inspection over the next 6 years. The average condition grade is computed from the most recent inspection data for each bridge. On a 6 yearly cycle of inspections the SCMI grade for a bridge will be up to 6 years old. For assets with very long lifetimes this is considered to be a better approach than taking a more recent, much smaller, sample.

Data reported in this Annual Return relates only to a sample of under-bridges and over-bridges in Southern, Midland and East Anglia zones as these are the zones where the new assessment methodology first started to be rolled out. The 2002 Annual Return will include data from all zones.

Signalling Failures

Description

This measure reports the total number of signalling failures causing a cumulative total train delay of more than 10 minutes per incident.

Results

Table 18 Number of Signalling Failures

Zone	Actual 2000/01 (Number)
East Anglia	2,005
Great Western	3,205
London North Eastern	4,087
Midland	5,431
North Western	2,822
Scotland	2,578
Southern	4,978
Network total	**25,106**

Commentary

This is the first year that this measure has been reported. It is a measure of the performance of the signalling system and it therefore provides some indication of its underlying condition.

The 10 minute threshold was selected to limit the quantity of data needing analysis and to improve overall quality of data (because incidents causing less than 10 minutes delay are subjected to less scrutiny than more disruptive ones). The measure is influenced by changes in the average delay caused by signalling failures as well as by changes in signalling condition.

The Regulator's target for control period 2 is for there to be no deterioration from the network total reported above.

Signalling Condition Index

Description

The purpose of this measure is to assess the condition of signalling assets in terms of a 1-5 grading system, where a condition grade of 1 is good and 5 poor. Condition grade is based on residual life of the equipment in a signalling interlocking area using the Signalling Infrastructure Condition Assessment (SICA) tool. While the assessment is dominated by the condition of the interlocking, the condition of lineside signalling equipment is also taken into account.

Results

Table 19 Signalling Condition Index

Condition grade	Observed nominal residual life (years)	2000/01 actual no. of interlocking areas in condition band
1	>20	0
2	10-20	441
3	3-10	162
4	<3	27
5	At end of life	0
Average condition grade		**2.3**

Notes

This is a new measure for 2000/01.

A baseline condition will be established during the second period once a sufficient sample size is achieved.

Commentary

Over 35% of interlocking areas were assessed by 1/4/01, and 100% will be achieved by end of control period 2.

The average condition is computed from the most recent assessment for each asset. On a 5 yearly cycle of assessments data used will be up to 5 years old. For assets with very long lifetimes this is considered to be a better approach than taking a more recent, much smaller, sample.

To arrive at the results we used 'Primary SICA', a newly developed simpler version of the well-established SICA tool. While we are confident that it correctly represents the relative residual lives of signalling interlocking, comparison with the results of the Signalling Asset Maintenance Plan (SAMP), which underpinned our cost submission for control period 2, reveals apparent differences in the absolute values of residual lives. We intend to understand the detailed reasons for these and to discuss any necessary adjustments with the Regulator before the 2002 Annual Return.

Electrification Failures – Overhead Line

Description

This measure reports the number of overhead line (OHL) component related failures that lead to incidents of duration exceeding 500 train delay minutes. Incidents due to bird strikes and vegetation incursion are included but those proved to have been caused by defective TOC equipment, outside parties, vandalism and those arising as a direct result of extreme weather conditions are excluded.

Results

Measure	Actual 2000/01
Number of incidents	88

Commentary

This is a new measure for 2000/01. It is a measure of the performance of the electrification system and it therefore provides some indication of its underlying condition.

The 500 minute threshold was selected to confine the measure to those serious incidents where we can be confident that the cause has been correctly attributed. However, the measure is influenced by changes in the average delay caused by electrification incidents as well as by changes in equipment condition.

The Regulator's target for control period 2 is for there to be no deterioration from the network total reported above.

Electrification Failures – 3rd Rail

Description

This measure reports the number of conductor rail component related failures that lead to incidents of duration exceeding 500 train delay minutes. It excludes incidents proved to have been caused by defective TOC equipment, outside parties, vandalism, animals and those arising as a direct result of extreme weather conditions.

Results

Table 20 Electrification Failures – 3rd Rail

Measure	Actual 2000/01
Number of incidents	45

Commentary

This is a new measure for 2000/01.

It is a measure of the performance of the electrification system and it therefore provides some indication of its underlying condition.

The 500 minute threshold was selected to confine the measure to those serious incidents where we can be confident that the cause has been correctly attributed. However, the measure is influenced by changes in the average delay caused by electrification incidents as well as by changes in equipment condition.

The Regulator's target for control period 2 is for there to be no deterioration from the network total reported above.

Electrification Condition – AC Traction Feeder Stations & Sectioning Points

Description

This is a measure of the condition of AC traction Feeder Stations & Track Sectioning Points (TSPs), on a scale of 1-5, based on visual inspection and the age, robustness of design, maintenance/refurbishment history and operational performance of the 25kV switchgear. The measure reports the percentage of Feeder Stations & Track Sectioning Points falling within each of the defined condition grades. A condition grade of 1 is good and 5 is poor.

Results

Table 21 Electrification Condition – AC Traction

Condition grade	2000/01 actual % of feeder stations and sectioning points
1	17%
2	57%
3	23%
4	3%
5	0%
Average condition grade	**2.1**

Commentary

This is a new measure for 2000/01.

A combination of site inspections and consideration of service history was undertaken during 2000, and rolled out across 44% of Railtrack's Feeder Stations, and 14% of its TSPs by the close of March 2001. In subsequent years sufficient of the population will be sampled to cover 100% of the population in every 5 year control period.

A baseline condition will be established during the second control period once sufficient sample size is achieved.

The average condition is computed from the most recent assessment for each asset. On a 5 yearly cycle of assessments the data used will be up to 5 years old. For assets with very long lifetime this is considered to be a better approach than taking a more recent, much smaller, sample.

Electrification Condition – DC Traction Substations

Description

This is a measure of the condition of Railtrack's DC Traction Substations, on a scale of 1-5, based on visual inspection and the age, robustness of design, maintenance/refurbishment history and operational performance of the HV switchgear, rectifier transformers, rectifiers and DC switchgear. A condition grade of 1 is good and 5 is poor.

Results

Table 22 Electrification Condition – DC Traction

Condition grade	2000/01 actual % of feeder substations
1	14%
2	56%
3	30%
4	0%
5	0%
Average condition grade	**2.2**

Commentary

This is a new measure for 2000/01.

A combination of site inspections and consideration of service history was undertaken during 2000 and rolled out across 20% of Railtrack Southern Zone's Feeder Stations. In subsequent years sufficient of the population will be sampled to cover 100% of the population in each 5 year control period.

We decided to address substations on Southern Zone only, on the basis that these account for over 90% of the total number found on Railtrack infrastructure. Assessment will be extended to other zones with DC traction in future years.

A baseline condition will be established during the second control period once sufficient sample size has been achieved.

The average condition is computed from the most recent assessment for each asset. On a 5 yearly cycle of assessments the data used will be up to 5 years old. For assets with very long lifetimes this is considered to be a better approach than taking a more recent, much smaller, sample.

Electrification Condition – AC Contact Systems

Description

This is a measure of the condition of AC contact systems, on a scale of 1-5, based on physical wear measurement of contact wire and visual inspection of key components including contact and catenary wires, registration assemblies and structures. A condition grade of 1 is good and 5 is poor.

Results

Table 23 Electrification Condition – AC Contact System

Condition grade	2000/01 actual % of contact wire/key components
1	22%
2	66%
3	11%
4	1%
5	0%
Average condition grade	**1.9**

Commentary

This is a new measure for 2000/01.

A combination of site inspections and maintenance reports were used during 2000 and rolled out across 2% of Railtrack's tension lengths. These tension lengths have been chosen to give representative coverage of most of the network. Thereafter the assessment cycle will cover 100% of routes every 5 years.

A baseline condition will be established during the second control period once sufficient sample size is achieved.

The average condition is computed from the most recent assessment for each asset. On a 5 yearly cycle of assessments the data used will be up to 5 years old. For assets with very long lifetimes this is considered to be a better approach than taking a more recent, much smaller, sample.

Electrification Condition – DC Contact Systems

Description

This is a measure of the condition of DC contact systems, on a scale of 1-5, based on physical wear measurement of conductor rail. A condition grade of 1 is good and 5 is poor.

Results

Table 24 Electrification Condition – DC Contact System

Condition grade	2000/01 actual % of conductor rail
1	40%
2	43%
3	16%
4	1%
5	0%

Commentary

This is a new measure for 2000/01.

This measurement, which assesses the condition of the DC contact system on the basis of conductor rail wear measurements, is based on records held by Southern Zone which accounts for more than 90% of Railtrack's DC electrification. The data management process was refined during 2000 for ORR reporting purposes, and the above results are based on data covering 57% of Southern Zone's network. The assessment cycle will cover 100% of DC electrified routes by the end of control period 2.

A baseline condition will be established during the second control period once sufficient sample size has been achieved. There is a clear wear threshold at which renewal needs to be programmed, and prior renewal is premature. Setting a target to maintain an average condition score would lead to wasteful expenditure. We intend to discuss with the Regulator the best way of monitoring this measure during control period 2.

The average condition is computed from the most recent assessment for each asset. On a 5 yearly cycle of assessments the data used will be up to 5 years old. For assets with very long lifetimes this is considered to be a better approach than taking a more recent, much smaller, sample.

Station Condition Index

Description

This is the average condition rating of each station where trains make timetabled stops, summarised into categories (A – F, national hub - small unstaffed station) together with the overall condition rating for all stations.

This is calculated by assessing the condition of each element of a station by visual inspection. These condition scores are then combined into an overall score of each station.

Results

Table 25 Number of stations in each condition grade

Station Category	Year	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total
A – National hub	1999/00	1	15	13	0	0	29
	2000/01	1	15	10	0	0	26
B – Regional hub	1999/00	0	52	13	0	0	65
	2000/01	0	51	8	0	0	59
C – Important feeder	1999/00	8	186	51	0	0	245
	2000/01	7	191	50	0	0	248
D – Medium, staffed	1999/00	16	216	66	0	0	298
	2000/01	15	208	58	0	0	281
E – Small, staffed	1999/00	29	509	135	2	0	675
	2000/01	28	504	118	2	0	652
F - Small, unstaffed	1999/00	66	784	326	12	0	1188
	2000/01	61	787	288	7	0	1143
All Stations	**1999/00**	**120**	**1762**	**604**	**14**	**0**	**2500**
	2000/01	**112**	**1756**	**532**	**9**	**0**	**2409**

Scoring scale: Grade 1 is good, Grade 5 is poor

Table 26 Condition Index Score per Category		
Measure	**1999/2000**	**2000/01**
Score for Station Category A	2.4	2.3
Score for Station Category B	2.3	2.2
Score for Station Category C	2.3	2.2
Score for Station Category D	2.2	2.2
Score for Station Category E	2.2	2.2
Score for Station Category F	2.3	2.3
Score for All Stations	**2.3**	**2.2**

Scoring scale: 1good, 5 poor.

Commentary

The 2001 baseline has been established by inspecting all stations during 1998/99, 1999/2000 and 2000/01. Stations subject to the Station Regeneration Programme (SRP) were inspected after completion of these works, but inspections were not possible for 91 stations where SRP works were underway. These will be included in the inspection sample for 2001/02. The target for this measure was to achieve 2.2 for the composite all stations score by April 2001; this was met. The regulatory target for the second control period is to maintain the score at 2.2. From 2001/02 a sample of 20% of the stations will be inspected each year.

The total number of 'Railtrack' stations is 2507. Three stations opened in 1999/2000, but were not included in the 1999/2000 inspection. During 2000/01 4 stations have opened: Brighouse, Wavertree Technology Park., Lea Green and Howwood. These new stations will all be included in the inspection sample for 2001/02.

Station Facility Score

Description

The level of facilities present at stations broken down by station category and by theme. The score is calculated by counting the number of specific items at each station. The facilities are grouped into 'themes'. The themes include the following facilities:

Access – disabled lavatories, induction loops, escalators;

Comfort & convenience – lavatories, shelters, covered trail on platforms;

Information & communications – clocks, public address, customer information systems;

Integrated transport – taxi ranks, car parks, highway markings;

Safety & security – lighting, handrails and anti-slip floors on footbridges & subways, CCTV, security doors & windows on staff accommodation, secure cash transfer facilities.

Results

Table 27 Access score

Station category	1999/2000	Actual 2000/01
A	96.9	100 (952)
B	97.5	100 (1024)
C	95.4	100 (2287)
D	96.1	100 (1969)
E	97.8	100 (2430)
F	96.4	100 (3696)

Table 28 Comfort & convenience score

Station category	1999/2000	Actual 2000/01
A	98.5	100 (5527)
B	98.6	100 (5741)
C	100.0	100 (10018)
D	97.5	100 (4009)
E	98.0	100 (4707)
F	96.7	100 (2565)

Table 29 Information & communications score

Station category	1999/2000	Actual 2000/01
A	88.5	100 (1837)
B	95.5	100 (1759)
C	96.2	100 (3669)
D	94.9	100 (2641)
E	97.4	100 (2681)
F	93.8	100 (49)

Table 30 Integrated transport score		
Station category	1999/2000	Actual 2000/01
A	98.7	100 (603)
B	99.3	100 (1071)
C	97.7	100 (2548)
D	97.2	100 (1661)
E	99.4	100 (1370)
F	98.4	100 (1548)

Table 31 Safety & Security score		
Station category	1999/2000	Actual 2000/01
A	96.5	100 (16187)
B	98.6	100 (12662)
C	97.1	100 (24009)
D	97.4	100 (17666)
E	99.7	100 (21529)
F	98.8	100 (15304)

Table 32 Network score		
All Stations	1999/2000	Actual 2000/01
Network Score	98	100 (173718)

Commentary

This is a new measure for 2000/01. Scores have been calculated for 1999/2000 using survey data collected during 1999/2000. Scores for 2000/01 are presented as an index of 100 to ease onward tracking of performance. Scores for 1999/2000 are shown relative to the index base. The base number of relevant assets is shown in parenthesis for 2000/01.

Light Maintenance Depot Condition Index

Description

This measure assesses the overall average condition of Light Maintenance Depots (LMDs) by providing, at each financial year end, the number of depots in individual average condition ratings of 1 – 5.

Results

Table 33 Light Maintenance Depot Condition Index

Condition grade	No. of depots in each grade
1	0
2	1
3	6
4	2
5	0
Average condition grade	**3.1**

Scoring scale: 1 good, 5 poor.

Commentary

This is a new measure. We inspected 9 LMDs in 2000/01, and will cover all our depots during the 5 year control period. The condition score is an average of the score from 11 of the major elements such as track, superstructure, plant & equipment.

A baseline condition will be established during control period 2 once a sufficient sample size has been achieved.

Section 3 – Activity Volumes

Rail Renewed

Description

The total length of track in kilometres where re-railing has been carried out.

Results

Table 34 Rail Renewed

	NMS forecast (km)	Actual 2000/01 (km)
WCRM	127	210
Non-WCRM		
East Anglia	47	142
Great Western	52	115
London North Eastern	60	110
Midlands	98	229
North West	85	108
Scotland	12	28
Southern	46	124
Network total	**527**	**1064**

Note: individual volumes shown above sum to 1066km; difference of 2km from the total is due to rounding.

Commentary

The final volumes of rail renewals for 2000/01 were dominated by the National Recovery Programme following the Hatfield accident which contributed 428km (40%) to the total of 1064km.

Sleepers Renewed

Description

The total length of track in kilometres where re-sleepering has been carried out.

Results

Table 35 Sleepers Renewed

	NMS forecast (km)	Actual 2000/01 (km)
WCRM	149	122
Non-WCRM		
East Anglia	40	29
Great Western	51	40
London North Eastern	38	40
Midlands	75	72
North West	88	109
Scotland	21	21
Southern	35	42
Network total	**497**	**475**

Note: individual volumes shown above sum to 474km; difference of 1km from the total is due to rounding.

Ballast Renewed

Description

The total length of track in kilometres where re-ballasting has been carried out.

Results

Table 36 Ballast Renewed

	NMS forecast (km)	Actual 2000/01 (km)
WCRM	165	112
Non-WCRM		
East Anglia	46	35
Great Western	35	44
London North Eastern	56	58
Midlands	71	61
North West	92	96
Scotland	12	40
Southern	52	50
Network total	***529**	**496**

Notes

* There was a printing error for the network forecast given in the NMS; the correct figure was 529km rather than the 648km stated in the NMS.

Structures Renewed

Description

The total number of structures spans that have been renewed or undergone major maintenance. The term 'structure' shall include only over and under bridges, side of line bridges and footbridges.

Results

Table 37 Structures Renewed

	NMS forecast (no of spans)	Actual 2000/01 (no of spans)
WCRM	4	5
Non-WCRM		
East Anglia	1	-
Great Western	6	1
London North Eastern	7	2
Midlands	13	13
North West	6	14
Scotland	5	6
Southern	4	4
Network total	**46**	**45**

Commentary

The above represents only a small part of the overall work carried out on our structures. During 2001/02 we shall be working with the Regulator to develop some further measures, to report a wider range of activities than those reported above.

Signalling Renewed

Description

The total length of track in kilometres where the signalling has been renewed.

Results

Table 38 Signalling Renewed

	NMS forecast (km)	Actual 2000/01 (km)
WCRM	-	142
Non-WCRM		
East Anglia	78	55
Great Western	-	1
London North Eastern	-	41
Midlands	24	5
North West	15	1
Scotland	-	-
Southern	163	95
Network total	**280**	**340**

Commentary

2000/01 saw significant signalling projects completed at Norwich – Cromer (55km), Dartford (95km) and at various locations on WCRM (142km) together with several other minor schemes.

Section 4 – Network Capability

Network capability data, as aggregated from the definitive operating documents, is known not to have the level of accuracy that Railtrack would wish for reporting in the Annual Return. It is therefore intended to calculate new baselines for the capability measures during 2001/02 and for these new baselines to be reported in the 2002 Annual Return. In the meantime, we report in this year's Annual Return the capability data at 1 April 2001 given in the 2001 Network Management Statement.

Line Speed

Table 39 Line Speed	
Speed band (mph)	km of track in each speed band
Up to 35	3,603
40 – 75	17,214
80 – 105	7,476
110 – 125	2,553
Total	**30,846**

Loading Gauge

Table 40 Loading Gauge	
Gauge band	km of route in each gauge band
W6W	16,522
W7	13,097
W8	10,467
W9	2,249
W10	800

Permitted Axle Weight

Table 41 Permitted Axle Weight	
Axle weight band (tonnes)	km of track in each weight band
Up to 20.3	2,725
20.4 – 24.1	14,729
24.2 – 25.4	13,392
Total	**30,846**

Electrification

Table 42 Electrification	
Type	km of electrification track
25 kV AC overhead	7,578
650/750 v DC third rail	4,285

Section 5 – Summary of Logged-up Enhancements

Description

This section refers to the logging-up of investment expenditure into the Regulatory Asset Base (RAB) at April 2001. For the purposes of the Periodic Review the logging-up included enhancements (other than ring fenced schemes) and certain renewals which the Regulator agreed to add to the RAB.

Results

Table 43 Summary of logged – up enhancements

Category	Forecast 00/01 £m	Actual 00/01 £m
Schemes allowed by Regulator in the Periodic Review final conclusions	443	289
Schemes excluded from Periodic Review (*)	204	63
Renewals improvements (50% allowed in Periodic Review)	76	44
Additional schemes since Periodic Review submissions	-	52

Notes:

Logging-up process excludes ring fenced schemes which include West Coast Route Modernisation, Thameslink 2000, Cross Country, Sunderland Direct and Channel Tunnel Rail Link associated works.

(*) This mainly related to expenditure at some stations which was excluded from the Periodic Review assumptions for the opening RAB pending further assessment, plus some expenditure to improve track quality that the Regulator re-classified as renewals.

Section 6 – 2000 NMS Reconciliation Statement

Introduction

Railtrack is required to produce a 'Reconciliation Statement' in accordance with Condition 7 of the Network Licence.

The purpose of the statement is to report upon:

- the extent to which aims were achieved in the year 2000/01 for works shown in the 2000 Network Management Statement (NMS);
- the extent to which the works did not achieve those aims, with reasons and remedies;
- reason for material changes to works in the 2000 NMS.

For the 1998 and 1999 Network Management Statements the corresponding Reconciliation Statements were prepared as discrete documents. For the 2000 NMS it has been agreed with the Office of the Rail Regulator (ORR) that the Reconciliation Statement will be incorporated into this Annual Return.

This section of the Annual Return contains the Reconciliation Statement for the works and expenditure that were forecast in the 2000 NMS for 2000/01 by strategic routes. The strategic routes combine to give forecasts and actual expenditures for the zones. The zones combine, along with some works that were undertaken on a network wide basis, to give network totals.

Within this section of the Annual Return the financial forecasts are shown as stated in the 2000 NMS, that is, at 1999/2000 prices. The amounts stated as actuals for the year 2000/01 have been retained at the outturn values. The rationale, as used for the previous years' Reconciliation Statements, is that:

- it enables the forecast figures in the NMS to be clearly identified in the Reconciliation Statement.
- the All Items Retail Price Index increase for the year was 3.0%, and as such does not cause sufficient distortion to warrant any adjustment when comparing forecast expenditure with actual expenditure.

The 2000 NMS also made forecasts for 2000/01 for operational performance, the condition of certain assets and the volume of renewal activities. These measures are reported in other sections of this Annual Return.

Summary

This section contains detailed analysis for the 45 strategic routes of the work forecast in the NMS, compared with the actual work undertaken. In explaining the differences between the forecast work and expenditure, and the actuals, there are a number of common themes.

The tragic accident at Hatfield in October 2000 resulted in significant changes to our plans for the remainder of the year in order to identify and repair Gauge Corner Cracking (GCC) and to manage these activities through the National Recovery Plan (NRP). This accounts for much of the additional £218m expenditure on track renewals. Some track renewals were deferred to 2001/02, to allow resources to be directed to the NRP. The additional maintenance expenditure across the network, £37m more than the £661m forecast, was also substantially due to additional work associated with GCC.

Total network renewals expenditure of £1749m was higher than the £1394m forecast because of the additional track renewals for GCC described above and because of additional expenditure particularly for signalling, electrification and stations. There was more track, signalling and electrification work than forecast on the West Coast Route Modernisation (WCRM) project. Across the network, many of the individual programmes of work for signalling were changed as priorities were reassessed to use scarce industry resources to best effect, and, in particular, to meet the demands of the installation of the Train Protection and Warning System (TPWS).

The programme of renewals at individual stations was also subject to change, with overall renewal expenditure more than forecast because of outstanding Station Regeneration Scheme work.

The actual expenditure on enhancements was £562m, compared with a forecast of £700m. A joint Railtrack / ORR review of the WCRM project was undertaken and this concluded that some items of work that had been included in the enhancement forecast should be allocated to renewals. The review also resulted in a different allocation of actual expenditure to asset type, particularly for track, structures, signalling, electrification and telecoms, to that assumed in the forecasts. This applied to both renewals and enhancement expenditure.

A number of enhancement schemes that were included in the forecasts did not progress because agreements were not concluded with customers and funders.

Zonal comparisons

The Annual Return provides details of expenditure by zone, thus enabling cost and performance comparisons to be made. Any such comparisons should be treated with extreme caution because of the different operating characteristics of each zone. These differences include geography, network density, freight tonnage, degree of congestion, length of electrified track and the age of assets.

Route expenditure data

Data disaggregated to route level will tend to be subject to wider confidence limits than network or zonal data. This is true of the NMS forecasts for which we have shown variances against outturn. Variances against NMS plans are to be expected in the particular circumstances of 2000/01. In any event, expenditure data disaggregated to route level is subject to greater variability.

Network

Maintenance

Table 44 Network Maintenance expenditure (£m)			
Maintenance expenditure (£m)	NMS Forecast	Actual	Variance
	661	698	37

There were additional costs associated with GCC repairs and the NRP. Additional payments were made to contractors to increase the scope of works, and to settle claims. The forecast also omitted some contracts.

Renewals

Table 45 Network Renewals expenditure (£m)			
Type of Asset	NMS Forecast*	Actual	Variance
Track	377	595	218
Structures	180	187	7
Signalling	317	389	73
Electrification	93	124	31
Plant & Machinery	154	166	12
Telecoms	67	53	(14)
Stations	173	210	37
Depots	21	17	(4)
Other	12	10	(2)
Total	**1394**	**1749**	**355**

*Note: The NMS forecast (Vol. 1, p 53) did not correctly sum the asset type totals across the network. This table restates the forecast of each asset type and the total network expenditure.

Track – Extra expenditure was caused by repairs to GCC and the NRP. There were also more WCRM renewals than forecast. These extra costs were partly offset by some deferral of the forecast renewal work.

Structures – Although the total network expenditure was close to the forecast, the programme of work changed significantly to undertake remedial work to embankments and cuttings affected by severe weather. There were also unplanned remedial works to tunnels.

Signalling – The expenditure associated with the WCRM was higher than forecast. Non-WCRM schemes had to manage the industry wide resource constraints.

Electrification – The expenditure associated with the WCRM was higher that forecast.

Plant & Machinery – Network-wide IT systems expenditure was higher than forecast.

Telecoms – There was slippage on various schemes, including the network-wide GSM radio development.

Stations – The forecast assumed the station Regeneration Programme would be largely completed, but significant works were undertaken.

Depots – There were significant accounting adjustments.

Other – There was slippage on property activities and various network-wide projects.

Enhancements

Table 46 Network Enhancement expenditure (£m)

Type of Asset	NMS Forecast	Actual	Variance
Track	131	126	(5)
Structures	70	38	(32)
Signalling	127	158	31
Electrification	102	62	(40)
Plant & Machinery	34	29	(5)
Telecoms	12	9	(3)
Stations	181	103	(78)
Depots	18	2	(16)
Other	25	34	9
Total	**700**	**562**	**(138)**

Track – The Railtrack/ORR joint review of WCRM project resulted in the allocation of some track work to the renewals category. This underspend was partly offset by additional expenditure on the Leeds 1st Scheme.

Structures – The Railtrack/ORR review of the WCRM project resulted in a different allocation of costs than that used in the forecast.

Signalling – The Railtrack/ORR review of the WCRM project resulted in a different allocation of cost than that used in the forecast. The forecast also underestimated the work programmed in Scotland Zone.

Electrification – The Railtrack/ORR review of the WCRM project resulted in different allocation of costs than that used in the forecast.

Plant & Machinery – Various network-wide schemes that were included in the forecast did not progress.

Telecoms – Various schemes did not progress, or suffered slippage.

Stations – Many station schemes, particularly at the major stations, did not progress as forecast, often due to agreements not being established with funders. Work originally forecast as enhancement was categorised as renewals.

Depots – A number of significant schemes did not progress, often as agreements had not been established with customers.

Other – Various schemes were undertaken that were not included in the forecast.

East Anglia Zone

Maintenance

Table 47 East Anglia Zone Maintenance expenditure (£m)			
Maintenance expenditure (£m)	NMS Forecast	Actual	Variance
	65	64	(1)

Renewals

Table 48 East Anglia Zone Renewals expenditure (£m)			
Type of Asset	NMS Forecast	Actual	Variance
Track	24	69	45
Structures	11	9	(2)
Signalling	20	21	1
Electrification	10	10	0
Plant & Machinery	1	1	0
Telecoms	5	3	(2)
Stations	14	18	4
Depots	2	0	(2)
Other	0	0	0
Total	**88**	**130**	**42**

Track – There was substantial additional spent on GCC repairs, as the track renewals programme was re-prioritised. An additional £8m was spent on outside party funded trackworks at Ripple Lane and Dagenham Dock to facilitate the future construction of the Channel Tunnel Rail Link. An additional £1m was spent on repairs following a freight train derailment on Camden Viaduct.

Structures – The West Anglia Route Modernisation (WARM) project structures work was reclassified as electrification for overhead line structures & signalling for signal gantries.

Signalling – The WARM reclassification of signal gantries from structures off-set a reduction on the overall scheme due to the deferral of works into 2001/02 as resources were redirected to ensure that a critical part of the WCRM was completed. An additional £1m was due to a financial adjustment from Telecoms renewals and Outside Party funded enhancements.

Telecoms – The implementation of upgraded customer information systems was re-phased to allow customers to confirm their specifications.

Stations – There were various changes to station works, including scope changes in the Station Regeneration Programme.

Depots – Work continued with customers to define the scope of works to replace the depot protection systems at East Ham Depot and Ilford. East London High Voltage Supplies of £1m were reclassified as Station spending.

Enhancements

Table 49 East Anglia Zone Enhancement expenditure (£m)			
Type of Asset	**NMS Forecast**	**Actual**	**Variance**
Track	0	0	0
Structures	1	0	(1)
Signalling	4	6	2
Electrification	1	0	(1)
Plant & Machinery	0	0	0
Telecoms	0	0	0
Stations	6	6	0
Depots	0	0	0
Other	0	0	0
Total	**12**	**12**	**0**

Structures – There was a lower than expected allocation of Thameslink 2000 development costs.

Signalling – More TPWS design and installation works were completed than anticipated in the forecast.

Electrification – There was a lower than expected allocation of Thameslink 2000 development costs.

Great Western Zone

Maintenance

Table 50 Great Western Zone Maintenance expenditure (£m)			
Maintenance expenditure (£m)	NMS Forecast	Actual	Variance
	91	101	10

Increased costs were due to contractual claims for additional maintenance arising from deferred renewals, new group/line standards and additional traffic; work required by NRP (including increased ultrasonic testing); increased maintenance in the Bristol contract area; and increased contractor performance costs.

Renewals

Table 51 Great Western Zone Renewals expenditure (£m)			
Type of Asset	NMS Forecast	Actual	Variance
Track	35	52	17
Structures	21	25	4
Signalling	12	15	3
Electrification	0	0	0
Plant & Machinery	3	3	0
Telecoms	3	2	(1)
Stations	5	6	1
Depots	3	(5)	(8)
Other	0	0	0
Total	**83**	**98**	**15**

Track – Costs associated with the NRP were £19m, and were partially offset by deferred track renewals.

Structures – There were additional costs associated with Dorney Bridge of £2m, remedial works to Charlton Tunnel of £1m, and additional Zone wide fencing of £1m.

Signalling – There was unbudgeted expenditure on Bristol Parkway Rail Express Systems depot.

Telecoms – There was an extended feasibility stage to seek the best technical solution to Reading signal post telephone concentrator renewal.

Stations – Changes to the scope of schemes.

Depots – There were accounting adjustments associated with Bristol Parkway depot.

Enhancements

Table 52 Great Western Zone Enhancement expenditure (£m)			
Type of Asset	**NMS Forecast**	**Actual**	**Variance**
Track	7	6	(1)
Structures	8	1	(7)
Signalling	14	17	3
Electrification	0	0	0
Plant & Machinery	2	0	(2)
Telecoms	0	0	0
Stations	8	11	3
Depots	10	1	(9)
Other	0	0	0
Total	**49**	**36**	**13**

Track – The underspend was mainly due to a delay in concluding the commercial agreement for the Old Oak Common Depot Upgrade.

Structures – Physical works for Class 180 route clearance were not started pending agreement to required works and associated costs (forecast costs of £2m). The majority of the remaining variance was due to claim settlements much lower than budgeted, particularly the Maidenhead-Windsor flood relief scheme.

Signalling – The increase was due principally to the TPWS programme.

Plant & Machinery – Underspend was mainly due to the delay in commercial agreement for the Old Oak Common Depot Upgrade.

Stations – The forecast expenditure did not fully reflect the station works that were planned.

Depots – The upgrade to Old Oak Common and St Philip's Marsh Depots to accommodate new First Great Western Class 180 rolling stock not started pending commercial agreement.

London North Eastern Zone

Maintenance

Table 53 London North Eastern Zone Maintenance expenditure (£m)			
Maintenance expenditure (£m)	NMS Forecast	Actual	Variance
	100	116	16

The forecast did not include non-IMC2000 maintenance contracts (e.g. structures, property, rail testing). There were also additional costs arising from GCC and traffic changes.

Renewals

Table 54 London North Eastern Zone Renewals expenditure (£m)			
Type of Asset	NMS Forecast	Actual	Variance
Track	48	59	11
Structures	21	22	1
Signalling	18	24	6
Electrification	1	0	(1)
Plant & Machinery	4	1	(3)
Telecoms	3	2	(1)
Stations	28	24	(4)
Depots	0	2	2
Other	0	1	1
Total	**122**	**135**	**13**

Track – Additional cost directly associated with GCC and the recovery work at the site of the Hatfield accident.

Signalling – There was additional expenditure of £5.8m that had been originally categorised as enhancement. There were also changes to the anticipated programme of works due to revised priorities, offset by deferral of some planned works.

Electrification – There was de-scoping of work, and some work was completed at less than the cost estimate.

Plant & Machinery – There were various changes to the scope of schemes, deferrals, and allocation of expenditure to other asset types.

Telecoms – Various schemes were re-phased, and completed under target costs.

Stations – There were changes to scope, re-phasing of work, and less reactive work was requested through the property hotline, than was forecast.

Depots – Schemes were undertaken that were not in the forecast due to changes in customer priorities.

Other – Minor schemes were undertaken that were not in the forecast.

Enhancements

Table 55 London North Eastern Zone Enhancement expenditure (£m)			
Type of Asset	**NMS Forecast**	**Actual**	**Variance**
Track	38	60	22
Structures	11	17	6
Signalling	47	44	(3)
Electrification	19	24	5
Plant & Machinery	1	1	0
Telecoms	5	3	(2)
Stations	13	29	16
Depots	0	1	1
Other	2	2	(1)
Total	**137**	**180**	**43**

Track – There were various changes to forecast work, but particularly additional expenditure on East Coast Mainline Upgrade, including Leeds 1st; and Tyne & Wear Metro Extension (Sunderland Direct).

Structures – There were various changes to forecast work, but particularly additional expenditure on Leeds 1st scheme, and Conisbrough Tunnel to improve gauge clearance.

Signalling – Some TPWS work was re-phased due to external resource constraints, and some Leeds 1st work expenditure was classified as renewals.

Electrification – Additional work was undertaken on ECML upgrade.

Telecoms – Less work was undertaken on ECML upgrade than forecast.

Stations – There was greater expenditure than forecast associated with the Tyne & Wear Metro Extension, and Leeds 1st.

Depots – There was work carried over from 1999/2000 and emerging work, than was not in the forecast.

Midlands Zone

Maintenance

Table 56 Midlands Zone Maintenance expenditure (£m)			
Maintenance expenditure (£m)	NMS Forecast	Actual	Variance
	116	118	2

There were various changes to the scope of work.

Renewals

Table 57 Midlands Zone Renewals expenditure (£m)			
Type of Asset	NMS Forecast	Actual	Variance
Track	127	214	87
Structures	61	37	(24)
Signalling	133	191	58
Electrification	42	59	17
Plant & Machinery	1	4	3
Telecoms	17	24	7
Stations	18	37	19
Depots	0	5	5
Other	3	6	3
Total	**402**	**576**	**174**

Track – There was £50m additional spending associated with the West Coast Route Modernisation. Costs of £31m were incurred on the National Recovery Programme, and there was increased expenditure on the track quality improvement programme.

Structures – There was £26.1m less expenditure than forecast on WCRM due to different asset categorisation, offset by additional costs for Manton Tunnel.

Signalling – The WCRM works were £60.6m more than forecast, due to re-categorisation of asset type and changes in the phasing of work. There was lower than forecast expenditure on non-WCRM schemes, particularly Saltley PSB resignalling scheme (£1.9m less than forecast).

Electrification – WCRM renewals were more than forecast, and there was reallocation of asset type associated with WCRM.

Plant & Machinery – WCRM work was not anticipated in the forecast.

Telecoms – There were various items of additional work, particularly WCRM related, and additional customer information systems work.

Stations – Station Regeneration Programme expenditure was greater than forecast.

Depots – A financial settlement to a depot operator was not included in the forecast.

Other – There were increased costs for the relocation of Zone headquarters.

Enhancements

Table 58 Midlands Zone Enhancement expenditure (£m)			
Type of Asset	**NMS Forecast**	**Actual**	**Variance**
Track	36	12	(24)
Structures	16	1	(15)
Signalling	15	33	18
Electrification	56	21	(35)
Plant & Machinery	0	10	10
Telecoms	3	2	(1)
Stations	14	13	(1)
Depots	0	0	0
Other	0	6	6
Total	**140**	**97**	**(43)**

Track – The joint Railtrack/ORR review of the WCRM resulted in changes to the renewal/enhancement split of expenditure, and changes to asset type allocations. The high allocations of expenditure to track renewals resulted in the actual expenditure considerably exceeding the track renewals forecast.

Structures – The joint Railtrack/ORR review of the WCRM resulted in changes to the renewal/enhancement split of expenditure, and changes to asset type allocations; so that most of the forecast expenditure on structures was allocated elsewhere.

Signalling – The joint Railtrack/ORR review of the WCRM resulted in changes to the renewal/enhancement split of expenditure, and changes to asset type allocations.

Electrification – The joint Railtrack/ORR review of the WCRM resulted in changes to the renewal/enhancement split of expenditure, and changes to asset type allocations.

Plant & Machinery – WCRM work was not anticipated in the forecast.

Telecoms – Various changes to the programme of work.

Other – The joint Railtrack/ORR review of the WCRM resulted in changes to asst type allocations.

North West Zone

Maintenance

Table 59 North West Zone Maintenance expenditure (£m)			
Maintenance expenditure (£m)	NMS Forecast	Actual	Variance
	90	95	5

There was increased track quality and equipment replacement work in the Manchester contract area, and this was partly offset by a reduction in cold bolt expansion work to allow for increased re-railing as a renewal activity.

Renewals

Table 60 North West Zone Renewals expenditure (£m)			
Type of Asset	NMS Forecast	Actual	Variance
Track	60	86	26
Structures	22	29	7
Signalling	63	75	12
Electrification	27	38	11
Plant & Machinery	0	1	1
Telecoms	10	7	(3)
Stations	30	35	5
Depots	3	2	(1)
Other	1	0	(1)
Total	**216**	**272**	**56**

Track – There was £21.0m additional spending associated with the West Coast Route Modernisation. Further additional costs were incurred on the National Recovery Programme, and there was increased expenditure on freight related renewals.

Structures – Various remedial works on embankments, tunnels and sea defences.

Signalling – The WCRM works were more than forecast, due to re-categorisation of asset type and changes in the phasing of work.

Electrification – WCRM renewals were more than forecast, and there was reallocation of asset type associated with WCRM.

Plant & Machinery – The delivery of minor schemes was not in the forecast.

Telecoms – There was re-phasing of concentrator work.

Stations – There was an increase to the Station Regeneration Programme.

Depots – Various changes of scope occurred.

Enhancements

Table 61 North West Zone Enhancement expenditure (£m)			
Type of Asset	**NMS Forecast**	**Actual**	**Variance**
Track	35	36	1
Structures	13	5	(8)
Signalling	16	10	(6)
Electrification	19	13	(6)
Plant & Machinery	3	7	4
Telecoms	3	0	(3)
Stations	11	20	9
Depots	0	0	0
Other	2	0	(2)
Total	**102**	**91**	**(11)**

Structures – The joint Railtrack/Office of the Rail Regulator review of the WCRM resulted in changes to the renewal/enhancement split of expenditure, and changes to asset type allocations; so that most of the forecast expenditure on structures was allocated elsewhere.

Signalling – Expenditure on TPWS was slower than forecast due to resourcing constraints, and there were changes to asset type allocation

Electrification – The joint review resulted in changes to the renewal/enhancement split of expenditure, and changes to asset type allocations.

Plant & Machinery – Various schemes incurred additional expenditure .

Telecoms – Various schemes did not progress.

Stations – There were various additional works, including PTE sponsored schemes.

Other – Various minor schemes did not progress.

Scotland Zone

Maintenance

Table 62 Scotland Zone Maintenance expenditure (£m)

Maintenance expenditure (£m)	NMS Forecast	Actual	Variance
	65	74	9

There were additional maintenance activities due to an increase in the volume of maintenance tamping in order to meet the requirements of the track quality specification, additional resources to improve the condition of the Ayrshire routes in advance of the introduction of the ScotRail Class 334's, initiatives to reduce broken rails; and additional inspection and rerailing associated with the National Recovery Programme. The volume of 'structures gauging works' also increased to facilitate the extended operation of additional ScotRail Class 170's and the introduction of ScotRail Class 334's.

Renewals

Table 63 Scotland Zone Renewals expenditure (£m)

Type of Asset	NMS Forecast	Actual	Variance
Track	29	41	12
Structures	26	30	4
Signalling	22	14	(8)
Electrification	5	7	2
Plant & Machinery	1	2	1
Telecoms	11	4	(7)
Stations	24	24	0
Depots	1	2	1
Other	0	0	0
Total	**119**	**125**	**6**

Track – There was £10.5m additional expenditure on GCC remedial works, and £1.4m increase of heavy maintenance work to reverse some of the adverse effects of freight traffic.

Structures – There was £5.5m additional expenditure to mitigate against the effects and risks of cuttings and embankment failures, £1.1m additional for mining subsidence, and a reduction in costs of £2.8m associated with the Forth Bridge.

Signalling – Various schemes were deferred, in particular Glasgow Central resignalling.

Electrification – WCRM renewals were more than forecast, and there was reallocation of asset type associated with WCRM. There was deferral of various minor non-WCRM schemes.

Plant & Machinery – There were various additional schemes, particularly to improve performance and monitoring capability.

Telecoms – The WCRM project re-categorised asset types, and various non-WCRM schemes were deferred.

Depots – Additional costs were incurred on a leasing agreement for new carriage washers.

Enhancements

Table 64 Scotland Zone Enhancement expenditure (£m)			
Type of Asset	**NMS Forecast**	**Actual**	**Variance**
Track	5	1	(4)
Structures	5	0	(5)
Signalling	14	8	(6)
Electrification	2	2	0
Plant & Machinery	0	0	0
Telecoms	0	0	0
Stations	7	5	(2)
Depots	3	0	(3)
Other	0	2	2
Total	**37**	**18**	**(19)**

Track – WCRM work did not progress as forecast.

Structures – WCRM work did not progress as forecast.

Signalling – There were delays in progressing TPWS due to resource constraints and reaching contractual agreements.

Stations – There were various changes to scope and delays to the forecast schemes.

Depots – The forecast schemes did not progress.

Other – Various schemes were not anticipated in the forecast.

Southern Zone

Maintenance

Table 65 Southern Zone Maintenance expenditure (£m)			
Maintenance expenditure (£m)	NMS Forecast	Actual	Variance
	133	128	(5)

Payments for RT1A and IMC2 contracts were lower than forecast, and performance payments to contractors were lower than expected.

Renewals

Table 66 Southern Zone Renewals expenditure (£m)			
Type of Asset	NMS Forecast	Actual	Variance
Track	51	73	22
Structures	18	35	17
Signalling	47	47	0
Electrification	8	10	2
Plant & Machinery	1	1	0
Telecoms	13	11	(2)
Stations	54	66	12
Depots	0	0	0
Other	1	1	0
Total	**193**	**243**	**50**

Track – The additional costs directly attributable to GCC were £11.4m, and haulage costs of £7.5m were incurred. Plain line renewals exceeded the forecast by £5.9m.

Structures – The prolonged unprecedented bad weather required extensive additional work to embankments and cuttings. During 2000/01 a total of 53 embankment sites were successfully rectified against an annual average of two. Remedial works at Strood tunnel were not forecast, and cost £2.5m.

Signalling – There were various changes to the scope and phasing of schemes occurred. The most significant was the Horsham Area Resignalling were £7m was spent against a forecast of £1.2m

Electrification – There was additional expenditure as work was brought forward from 2001/02 to maintain asset condition.

Telecoms – Cab Secure Radio renewal progressed slower than expected.

Stations – Station Regeneration Programme works were carried over from 1999/2000.

Enhancements

Table 67 Southern Zone Enhancement expenditure (£m)			
Type of Asset	**NMS Forecast**	**Actual**	**Variance**
Track	7	5	(2)
Structures	7	9	2
Signalling	13	23	10
Electrification	1	2	1
Plant & Machinery	0	2	2
Telecoms	1	4	3
Stations	12	19	7
Depots	4	0	(4)
Other	0	2	2
Total	**47**	**66**	**19**

Track – There was £5.8m forecast for expenditure on Channel Tunnel Rail Link associated track works with actual expenditure of £0.1m. The allocation of costs from the Thameslink 2000 project was £3.0m more than forecast.

Structures – There was additional expenditure for the CTRL Shortlands Junction Grade Separation works.

Signalling – The forecast did not accurately reflect the expected expenditure on TPWS works. The forecast should have been £22.0m, and actual expenditure was £20.8m.

Electrification – The allocation of costs from the Thameslink 2000 project was more than forecast.

Plant & Machinery – The Selhurst Depot wheel lathe was replaced.

Telecoms – CIS expenditure was higher than forecast.

Stations – The allocation of costs from the Thameslink 2000 project was more than forecast.

Depots – Work at Stewarts Lane depot did not progress.

Other – Deferred fixed asset expenditure (for feasibility work) was not allocated to asset type.

Route 1 – West Coast Main Line: London - Glasgow & Edinburgh

Renewals

Table 68 Route 1 Renewals expenditure (£m)

Midlands Zone	NMS Forecast	Actual	Variance
Track	72.2	147.3	75.1
Structures	44.2	18.8	(25.4)
Signalling	110.6	174.8	64.2
Electrification	41.3	58.2	16.9
Plant & Machinery	0.1	4.2	4.1
Telecoms	16.4	23.0	6.6
Stations	11.5	27.3	15.8
Depots	0.0	4.9	4.9
Other	0.4	5.5	5.1
Total expenditure	**296.7**	**464.1**	**167.4**
North West Zone			
Track	36.7	62.9	26.2
Structures	12.6	15.9	3.3
Signalling	58.3	71.7	13.4
Electrification	25.3	37.3	12.0
Plant & Machinery	0.4	(0.1)	(0.5)
Telecoms	7.2	6.1	(1.1)
Stations	10.2	17.2	7.0
Depots	0.4	0.2	(0.2)
Other	0.8	0.0	(0.8)
Total expenditure	**151.9**	**211.2**	**59.3**
Scotland Zone			
Track	5.4	11.2	5.8
Structures	3.8	3.7	(0.1)
Signalling	8.7	7.2	(1.5)
Electrification	3.6	6.9	3.3
Plant & Machinery	0.1	0.1	0.0
Telecoms	4.3	0.7	(3.6)
Stations	2.1	2.7	0.6
Depots	0.0	0.0	0.0
Other	0.0	0.0	0.0
Total expenditure	**28.0**	**32.5**	**4.5**

Midlands Zone

Track - There were £122.0m of renewals associated with the WCRM, and these exceeded the forecast of WCRM work by £49.8m. This was due to the Railtrack/ORR joint review of the project that amongst other things, altered the split of work between renewal and enhancement categories. The project also created an integrated schedule of works, that allowed the progression of a greater volume of renewals. The costs associated with GCC were £20.0m, and there were £5.3m of track quality improvement schemes that were not in the forecast.

Structures – The WCRM project review resulted in a different asset categorisation than used in the forecast. As a result, the structures expenditure associated with the Euston / Willesden remodelling was allocated to other asset types.

Signalling – The WCRM project review identified a number of areas where previously forecast asset categories should be re-classified. There were also additional infrastructure renewals due to prioritisation of works and the integrated schedule that had been created. The actual expenditure of £171.2m was £60.6m more than forecast. Non-WCRM related work was dominated by various performance improvement (PfPi) initiatives that were not included in the forecast.

Electrification – The WCRM OLE alliance achieved £16.2m additional infrastructure renewals, compared with the £41.3m forecast. The joint review reclassified asset categories as well as renewal/enhancement categories. There were various small non-WCRM works that were not in the forecast.

Plant & Machinery – The forecast did not include the plant items included within the Euston/Willesden remodelling scheme, such as point heaters.

Telecoms – On the WCRM project there was additional expenditure of £2.8m due to various additional items. There was increased expenditure for non-WCRM work for the development of retail telecoms equipment, such as customer information systems, at various Virgin West Coast stations.

Stations – The Station Regeneration Programme costs during the year, on stations such as Rugby, Preston, Carlisle and Macclesfield, were all above the figures included in the NMS. An additional £1.0m was spent at Euston; with SRP work commencing; and new lounge and retail facilities. At Birmingham New Street SRP work continued, and will be completed in November 2001 with the repair of tactile strips.

Depots – A £5m dowry payment was made to West Coast Traincare Ltd on the transfer of responsibility for maintenance and renewal of 6 depots across the network.

Other – The forecast assumed that the costs of moving the Zone Headquarters to the 'Mail Box' would be allocated across the Zone's routes. Actual costs have been allocated to Route 1.

North West Zone

Track – There were £57.7m of renewals associated with the West Coast Route Modernisation, and these exceeded the forecast of WCRM work by £21.0m. This was due to the joint Railtrack/ORR joint review of the project that altered the split of work between renewal and enhancement categories; and the creation of an integrated schedule of works, that allowed the progression of a greater volume of renewals. The costs associated with GCC were £4.1m.

Structures – The WCRM programme of works slightly exceeded that planned.

Signalling – The WCRM project review identified a number of areas where previously forecast asset categories should be re-classified. The programme also achieved additional infrastructure renewals due to prioritisation of works and the integrated schedule that had been created. The actual expenditure of £71.1m was £12.8m more than forecast. There was minor non-WCRM related work that was not included in the forecast.

Electrification – The WCRM Overhead Line Electrification alliance achieved additional infrastructure renewals, compared with the forecast, and the joint review reclassified asset categories, as well as renewal /enhancement categories.

Plant & Machinery – There were accounting adjustments.

Telecoms – The WCRM programme reclassified asset categories and renewal/enhancement splits.

Stations – There was additional expenditure at Manchester Piccadilly due to changes in scope of works, and a contractor's claim for work at Liverpool Lime Street. Strengthening of Preston roof was not envisaged in the forecast.

Scotland Zone

Track – There was £4.9m additional spent repairing GCC.

Signalling – The WCRM the project review identified a number of areas where previously forecast asset categories should be re-classified.

Electrification – The WCRM OLE alliance achieved additional infrastructure renewals, compared with the forecast.

Telecoms – The WCRM programme reclassified asset categories and funding categories in the year. Signalling work forecast at £0.3m at Glasgow Central did not progress as envisaged whilst a revised strategy based on the current condition of the equipment and the forecast capacity requirements was assessed.

Stations – Change in scope of works. SRP work was completed at Glasgow Central.

Enhancements

Table 69 Route 1 Enhancement expenditure (£m)

Committed Enhancements	Completion	NMS Forecast	Actual	Variance
West Coast Route Modernisation Phase 1	2006/7	170.7	75.8	(94.9)
West Coast Route Modernisation Phase 2	2002/3	0.0	28.2	28.2
Other committed schemes	Various	5.3	0.4	(4.9)
Total		**176.0**	**104.4**	**(71.6)**
Optional Enhancements				
Manchester area: capacity	-	-		
Coventry – Birmingham: capacity	-	-		
Euston station	-	-	0.4	
Manchester Piccadilly station	-	-	8.9	
Other schemes	-	-		
Birmingham International station: multistorey car park	-	-	0.3	
Glasgow station	-	-	0.6	
Glasgow: concourse masterplan	-	-		
Euston – Watford Junction (DC Lines): journey time improvements	-	-		
Stockport Station	-	-		
Wolverhampton: multi-storey car park	-			
B'ham International Car Park Barriers *	-		0.2	
Willesden Station *			0.2	
Virgin CIS *			0.1	
Birmingham New Street *	-		0.2	
Total			**10.9**	

* Note: Not specifically identified in the NMS forecasts

West Coast Route Modernisation: Phase 1 & Phase 2 – During the year 2000/01 the WCRM project undertook a joint review of the programme with ORR. This review considered the forecast expenditure and how it should be funded, and so allocated to the renewal and enhancement expenditure categories. The resulting agreement amended the allocation to align with the Regulator's Determination on the Final Conclusions for the Periodic Review of Railtrack's Access Charges.

During the year there was also a review of the assets that were to be created. This identified a number of areas where previous assumptions were shown to be inaccurate, and a reallocation between asset categories was made. Both the reviews required adjustments to be made to previous years' expenditure and these adjustments were made in the actual expenditure reported.

The programme delivered additional infrastructure work in the year in order to comply with the Phase 1 obligations. This resulted in an increase of work completed by the track and electrification sub programmes.

The WCRM programme created an integrated schedule and workload, which gave the ability to mix and match the work to the resources available at any one time. This again resulted in additional work being undertaken on the infrastructure. It should be noted that the variance arising from the additional expenditure in the renewals category is significantly greater than the variance of the underspend in enhancements. The net result is that total expenditure on the project exceeds the forecast.

Other committed schemes – TPWS implementation was less than planned due to a lack of signalling design resources and the delays nationally in awarding contracts.

Optional enhancements

Euston station – expenditure was £6.7m less than forecast as Masterplan work was not progressed due to on-going discussions with SRA, and reduced scope of Station Regeneration Programme work.

Manchester Piccadilly station – expenditure was £3.5m less than forecast. The renewal of CIS was deferred to coincide with Masterplan projects, due to be completed in 2001/02. Studies are underway to develop platforms 13 and 14.

Birmingham International station: multistorey car park – The £0.3m was spent on the development of the scheme. However, the project is now on hold until funding issues are resolved with Virgin and the SRA.

Glasgow concourse Masterplan and Glasgow station – expenditure was £2.6m less than forecast as Masterplan work was not progressed due to on-going discussions with SRA, and the reduced scope of Station Regeneration Programme work.

Birmingham International Car Park Barriers – New barriers were fitted to the car park. This scheme was not included in the NMS forecasts.

Willesden Station – Various works were performed at Willesden for Silverlink, these works were not included in the forecasts.

Virgin CIS – Development work was undertaken on customer information systems at various Virgin stations.

Birmingham New Street – The analysis of the study for the station development continued, and discussions are now in progress with the SRA.

Route 2 – East Coast Main Line: London Edinburgh

Renewals

Table 70 Route 2 Renewals expenditure (£m)

London North Eastern Zone	NMS Forecast	Actual	Variance
Track	21.4	30.3	8.9
Structures	8.3	7.9	(0.4)
Signalling	8.2	18.1	9.9
Electrification	0.8	0.3	(0.5)
Plant & Machinery	3.3	0.5	(2.8)
Telecoms	1.8	1.0	(0.8)
Stations	11.9	11.0	(0.9)
Depots	0.0	0.9	0.9
Other	0.1	0.7	0.6
Total expenditure	**55.8**	**70.7**	**14.9**
Scotland Zone			
Track	1.7	3.7	2.0
Structures	3.8	5.0	1.2
Signalling	0.4	0.3	(0.1)
Electrification	0.3	0.0	(0.3)
Plant & Machinery	0.1	0.2	0.1
Telecoms	0.6	0.0	(0.6)
Stations	5.1	2.3	(2.8)
Depots	0.0	0.0	0.0
Other	0.0	0.0	0.0
Total expenditure	**12.0**	**11.5**	**(0.5)**

London North Eastern Zone

Track – There were costs of £5.2m for work directly associated with the Hatfield accident, and costs of £12.3M for GCC repairs on the route. There was underspend of £5.1m for the Leeds 1st scheme, with the work being re-phased into 2001/02. Some renewals were deferred due to resources being reallocated to GCC works.

Structures – Changes to the programme of works, the most significant being £0.6m additional expenditure on Cadwell level crossing following approval of the scheme by the Secretary of State. There was also £0.3m on the New Barnet landslip, and £0.4m additional earthworks following risk assessments. These were offset by deferral of works due to a protracted public inquiry on the Preston le Skerne level crossing scheme and other under spends.

Signalling – There were various changes to the programme of works, the most significant being £5.8m extra work for the Leeds 1st scheme, £5.5m for route control changes (previously allocated to route 36), £0.5m extra on SPAD mitigation and £0.4m extra on relay servicing. These were partly offset by deferrals due to resource constraints.

Electrification – There were changes to the programme, principally the transfer of works to the IMC2000 core works contracts. There were also savings on the Scremeston overhead line equipment renewal and warning sign scheme.

Plant & Machinery – expenditure of £1.4m on switch heaters was previously categorised as signalling. There were also changes to the programme.

Telecoms – Work on the York concentrator cost £0.2m less than forecast due to efficiency savings, relocation of York Control cost £0.2m less than forecast, and re-phasing of the GNER CIS scheme caused an underspend of £0.3m.

Stations – There was less spent than forecast on the Newcastle Main Offices as the works were not completed, and at Hatfield and Stainforth Station Regeneration Programme works were delayed due to planning constraints. SRP work commenced at King's Cross and will be completed in 2001/02.

Depots – There was extra expenditure resulting from the reactive property hotline, £0.2m extra expenditure on the Heaton Depot fume extraction system, and £0.1m extra on the GNER depot maintenance programme.

Scotland Zone

Track – There was £1.3m additional spent repairing GCC. Re-prioritisation of work from other routes resulted in an additional renewals expenditure of £0.7m.

Structures – Additional £1.1m mining subsidence repairs at Wallyford was required including TOC compensation charges. An extra £0.1m on strengthening rock cuttings and embankments which was not originally identified.

Signalling – The work on Edinburgh wire degradation was reduced by £0.2m to facilitate an interface between the Edinburgh CrossRail new passenger service and the Masterplan to develop Edinburgh Waverley station.

Electrification – The forecast expenditure of £0.1m to install bird deflector strips did not take place, following a reprioritisation of schemes. Other minor works totalling £0.2m were deferred Plant & Machinery – There was an £0.1m additional provision for UPS generators to maintain performance.

Telecoms – The £0.5m of forecast expenditure on the telephone concentrator at Edinburgh Waverley was deferred to synchronise with the resignalling works.

Stations – The £3.4m of forecast expenditure at Edinburgh Waverley did not progress, but SRP work has now commenced and will continue until 2002/03.

Enhancements

Table 71 Route 2 Enhancement expenditure (£m)

Committed Enhancements	Completion	NMS Forecast	Actual	Variance
Thameslink 2000	2006/7	0.8	1.7	0.9
Other committed schemes	Various	10.9	3.6	(7.3)
ECML route upgrade: Doncaster South Yorkshire Junction	2000/1	1.9	2.5	0.6
Total		**13.6**	**7.8**	**(5.8)**
Optional Enhancements				
ECML: Phase II	-	-	11.8	
ECML: Phase IV	-	-	1.9	
ECML: Phase III	-	-	0.2	
King's Cross Station	-	-	0.5	
ECML: Phase I	-	-	73.6	
Other schemes	-	-	2.5	
Peterborough Station	-	-	0.1	
York Station	-	-		
Freight: gauge enhancements	-	-		
Edinburgh – North Berwick: journey time enhancements	-	-		
Edinburgh station *			0.9	
Total		**-**	**91.4**	

* Note: Not specifically identified in the NMS forecasts

Thameslink 2000 –The costs of the Public Inquiry, the Bechtel Programme Management Team, London Underground Limited (LUL) design verification, and objectors' compensation were all higher than forecast.

Other committed schemes – Scotland Zone spent £0.5m less on TPWS, and London North East Zone spent £2.9m less than planned, due to lack of signalling resources, and delays in awarding national contracts. Also, track quality work did not progress due to resource constraints.

ECML route upgrade: Doncaster South Yorkshire Junction – There was extra spent to satisfy customer requirements at Hexthorpe Sidings.

Optional enhancements

King's Cross Station – Masterplan forecast expenditure of £7.6m did not progress, awaiting SRA approval.

Other schemes – The schemes undertaken were as follows: Wakefield Westgate Car Park Extension costing £0.5m, level crossings (including buy out of rights of way) costing £1.5m, Doncaster Marshgate switches and crossings costing £0.8m, Newark Dyke bridge costing £0.6m, and fencing/anti-trespass works for £0.3m. There was also an account transfer for feasibility work that reduced the total spent by £1.3m.

Edinburgh – Actual expenditure of £0.9m was £1.4m less than forecast.

Route 3 – Great Western Main Line: London to Bristol and Swansea

Renewals

Table 72 Route 3 Renewals expenditure (£m)

Great Western Zone	NMS Forecast	Actual	Variance
Track	12.8	16.3	3.5
Structures	12.5	14.0	1.5
Signalling	6.1	8.7	2.6
Electrification	0.3	0.2	(0.1)
Plant & Machinery	2.3	2.3	0.0
Telecoms	3.0	1.3	(1.7)
Stations	2.2	3.9	1.7
Depots	1.9	(4.9)	(6.8)
Other	0.0	0.0	0.0
Total expenditure	**41.1**	**41.8**	**0.7**

Track – There was unbudgeted expenditure of £3.9m on the National Recovery Programme, and reclassification of Bristol Parkway Rail Express Systems (Res) Depot expenditure of £1.0m. This was partially offset by £1.1m of deferred track renewals at Studley, Cholsey, Pangbourne, St Brides, Marshfield Winterbourne and Chipping Sodbury; and the delay of outstanding works of £0.3m on Par switches and crossings (S&C) due to lack of signalling and telecoms design resources.

Structures – Unbudgeted expenditure associated with Dorney Bridge of £1.5m was the principal reason for the variance.

Signalling – Reclassification of Bristol Parkway depot expenditure of £2.7m.

Electrification – Only design work was undertaken, and implementation of work will proceed in 2001/02.

Telecoms – The feasibility stage was extended for the Reading SPT Concentrator renewal to seek the best technical solution, and this caused underspend of £1.9m. This is now progressing as a distributed concentrator system. Also, there was reclassification of Bristol Parkway Res depot expenditure causing an additional £0.1m.

Stations – There was a delay in the Maidenhead lift renewals giving an underspend of £0.1m, pending resolution of ticket barrier positions. Also, there were various changes in scope to the station cyclic AMP programme.

Depots – There was reclassification of Depot AMP expenditure associated with Bristol Parkway Res depot in 1999/2000.

Enhancements

Table 73 Route 3 Enhancement expenditure (£m)

Committed Enhancements	Completion	NMS Forecast	Actual	Variance
Other committed schemes	Various	6.3	4.9	(1.4)
Maidenhead – Windsor: flood relief	2001/02	6.4	1.5	(4.9)
Bristol Parkway: Royal Mail	2000/01	1.7	0.2	(1.5)
Bristol Parkway Station: enhancements	2001/02	1.8	1.8	0.0
Cardiff Station	2000/01	0.0	0.0	0.0
Wentloog: freight terminal	2000/01	2.5	2.4	(0.1)
South Marston, Swindon: Euroterminal	2000/01	0.0	0.8	0.8
FGW: customer information systems and security	2000/01	0.1	0.4	0.3
Total		**18.8**	**12.0**	**(6.8)**
Optional Enhancements				
Great Western Upgrade: Phase III	-	-		
Other schemes	-	-		
Great Western Upgrade: Phase I	-	-		
Great Western Upgrade: Phase II	-	-		
Paddington Station	-	-	6.0	
Great Western Main Line: journey time improvements	-	-		
Colnbrook Euroterminal	-	-	0.3	
Old Oak Common: depot upgrade	-	-	0.5	
Freight gauge enhancements	-	-		
Thames Valley Park: new station	-	-	0.1	
Newport car park development	-	-		
Hanwell Bridge Loops: electrification	-	-		
Wootton Bassett: new access to stone siding	-	-		
Hayes Station: gateway development	-	-		
Iver: proposed freight siding	-	-		
Brackla and Llanharan: new station	-	-		
Cross country journey time and frequency improvements	-	-		
Paddington – Reading journey time improvements	-	-		
Swansea Station: redevelopment	-	-		
Twyford Station: car park enlargement	-	-		
Total		**-**	**6.9**	

Other committed schemes – The underspend was due to a reduction in scope of the Reading Incremental Development Scheme Stage 2 works, and slippage of the Class 180 gauge clearance scheme.

Maidenhead – Windsor flood relief – Claims settlement was much lower than budgeted.

Bristol Parkway Res Depot – Works were accelerated at the end of 1999/2000 year, and the terminal opened in July 2000.

Wentloog: freight terminal – The terminal opened 23 March 2001.

South Marston, Swindon Euroterminal – Forecast expenditure was not included in the NMS.

Route 4 – Reading and Bristol to Penzance and branches

Renewals

Table 74 Route 4 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	8.5	23.0	14.5
Structures	5.1	5.5	0.4
Signalling	3.5	3.8	0.3
Plant & Machinery	0.2	0.2	0.0
Telecoms	0.1	0.1	0.0
Stations	0.5	0.4	(0.1)
Depots	1.3	0.1	(1.2)
Total expenditure	**19.2**	**33.1**	**13.9**

Track – There was unbudgeted expenditure of £15m on the National Recovery Programme, and this was partially offset by deferred track renewals at Theale, Mount Gould, Haregrove and Flax Bourton due to the GCC programme.

Structures – There was unbudgeted works to Welham Embankment (£0.2m) and Dawlish Seawall (£0.1m). Additional fencing expenditure was £0.1m.

Signalling – There were additional signalling costs associated with Clink Road, Goonbarrow and Par East S&C renewals.

Stations – There was a delay in the completion of Bodmin Station due to the late submission of an acceptable design and consequent loss of fixed possessions by the contractor.

Depots – Work on wheel lathes and Plymouth Laira depot was delayed pending remit/strategy for the depot works required for new Class 180 rolling stock.

Enhancements

Table 75 Route 4 Enhancement expenditure (£m)

Committed Enhancements	Completion	NMS Forecast	Actual	Variance
Other committed schemes	Various	0.9	1.8	0.9
FGW: customer information systems and security	2000/01	0.0	0.0	0.0
Total		**0.9**	**1.8**	**0.9**
Optional Enhancements				
Bristol and Reading – Plymouth: speed raising	-	-	0.1	
Freight: gauge enhancement	-	-		
Other schemes	-	-		
Tavistock Junction: new freight terminal	-	-		
Exeter: Euroterminal	-	-		
Menheniot Station: park and ride	-	-		
Roche: new freight terminal connection	-	-		
Plymouth Station: forecourt improvements and interchange facility	-	-		
Thames Trains: car park extensions	-	-		
Great Western Trains: car park strategy	-	-		
Paignton Station: improved forecourt	-	-		
Burngullow: new connection to branch line	-	-		
Flax Bourton: improved operational flexibility	-	-		
Taunton Station: island platform reopening	-	-	0.1	
Total		**-**	**0.2**	

Other committed schemes – There was acceleration of the TPWS project.

Route 5 – Midland Main Line: London Sheffield

Renewals

Table 76 Route 5 Renewals expenditure (£m)

London North Eastern Zone	NMS Forecast	Actual	Variance
Track	0.4	0.0	(0.4)
Structures	1.1	0.5	(0.6)
Signalling	0.0	0.6	0.6
Electrification	0.0	0.0	0.0
Plant & Machinery	0.0	0.0	0.0
Telecoms	0.0	0.2	0.2
Stations	0.0	0.1	0.1
Depots	0.0	0.1	0.1
Other	0.0	0.1	0.1
Total expenditure	**1.5**	**1.6**	**0.1**
Midlands Zone			
Track	19.9	32.8	12.9
Structures	1.8	2.1	0.3
Signalling	7.2	11.5	4.3
Electrification	0.1	0.4	0.3
Plant & Machinery	0.3	0.0	(0.3)
Telecoms	0.7	0.6	(0.1)
Stations	4.4	7.0	2.6
Depots	0.4	0.0	(0.4)
Other	0.4	0.0	(0.4)
Total expenditure	**35.2**	**54.4**	**19.2**

London North Eastern Zone

Track – The track renewals programme was deferred to allow resources to be used on the GCC repairs elsewhere.

Structures – There was general de-scoping of the structures renewal programme.

Signalling – There was £0.1m extra spent on SPAD mitigation, £0.1m on extra signal renewals, and an extra £0.4m on IMC2000 complementary renewals.

Telecoms – There was £0.2m spent on Chesterfield CIS.

Depots – There was £0.1m spent on work arising from the reactive property hotline.

Other – There was £0.1m spent on TOC estate and lineside reactive maintenance.

Midlands Zone

Track – An additional £8.9m was incurred on GCC, plus a further £4.0m on Track Quality Improvement schemes that were not included in the original forecast.

Structures – Various minor items of additional spend.

Signalling – The scheme to eliminate silver migration in signalling equipment and reduce wrong side failures was £1.1m above the forecast. Urgent renewal works at locations controlled by Trent PSB were £0.5m in excess of those included in the forecast. There was allocation of £0.2m more expenditure on Thameslink 2000 Associated Signalling Works design than forecast.

Electrification – expenditure of £0.4m was incurred on projects targeted at performance improvement (PfPi), that were not included in the forecast.

Plant & Machinery – The King's Cross tunnel lighting renewal scheme was deferred until 2001/02.

Telecoms – Development work for renewal of Customer Information Systems at a variety of Midland Main Line stations was deferred until 2001/02.

Stations – There was deferred expenditure on Sheffield Station regeneration programme, with work continuing in 2001/02.

Depots – Work on the both the Etches Park and Bedford washers was delivered during the year. (The £0.4m cost of these works was erroneously attributed to Station spend).

Other – The forecast assumed that the cost of moving the Zone Headquarters to the 'Mail Box' would be allocated across the Zone's routes. Actual costs have been allocated to Route 1.

Enhancements

Table 77 Route 5 Enhancement expenditure (£m)

Committed Enhancements	Completion	NMS Forecast	Actual	Variance
Thameslink 2000	2006/07	5.2	6.3	1.1
Other committed schemes	Various	6.1	0.0	(6.1)
TPWS *			6.9	6.9
Luton Airport Parkway Station *			2.1	2.1
Midland Mainline Franchise Replacement *			0.3	0.3
Kentish Town *			1.5	1.5
Midland Mainline Timetable Works *			1.2	1.2
Thameslink Franchise Replacement *			0.0	0.0
Derby Station Footbridge *			1.9	1.9
Thameslink Car Parks *			0.6	0.6
Nottingham Eastcroft Depot *			0.3	0.3
Nottingham Station Public Address *			0.1	0.1
Other Minor Items *			0.8	0.8
Total		11.3	22.0	10.7
Optional Enhancements				
Midland Main Line: upgrade	-	-		
Sheffield area: capacity improvements	-	-		
Other schemes	-	-	0.9	
Heathrow – St Pancras: rail link	-	-		
East Midlands Parkway Station	-	-		
Beeston – Mansfield Junction: operational flexibility	-	-		
Cross – Country journey time improvements	-	-		
Total		-	0.9	

* Note: Not specifically identified in the NMS forecasts

Thameslink 2000 – The costs of the Public Inquiry, the Bechtel Programme Management Team, LUL design verification, and objectors' compensation were all higher than forecast.

Other committed schemes – This item included the schemes now shown in the table, that were not specifically identified in the NMS.

TPWS – There was acceleration of the programme.

Luton Airport Parkway Station – Increased costs of completion of the new station due to a variety of commercial problems encountered over the scheme.

Midland Mainline Franchise Replacement – Due to ongoing discussions regarding funding of the development proposals there has been less development work performed during the year.

Kentish Town Turnback – This work was required to achieve the timescales for delivery of CTRL and was not included in original NMS figures.

Midland Mainline Timetable Works – These were the final costs of the scheme, that was physically completed for the introduction of the upgraded 1999 timetable.

Thameslink Franchise Replacement – Due to ongoing discussions on funding of the development proposals, there was less development work performed during the year than expected.

Derby Station Footbridge – There were increased costs for the footbridge extension due to structural defects within the existing structure that were only detected once the scheme had commenced.

Thameslink Car Parks – Underspend, as only the Harpenden car park extension progressed.

Nottingham Eastcroft Depot – The scheme was originally expected to be complete in 2000/1, and so no expenditure was forecast in the NMS.

Nottingham Station Public Address – This scheme was not included in original NMS forecast.

Optional enhancements

Other schemes – There were £0.7m enhancements at Chesterfield station, fencing and anti-trespass works of £0.1M, and demolition of Chesterfield timber warehouse.

Route 6 – Channel Tunnel Routes

Renewals

Table 78 Route 6 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	6.0	13.4	7.4
Structures	2.1	7.6	5.5
Signalling	10.7	6.7	(4.0)
Electrification	0.8	0.4	(0.4)
Plant & Machinery	0.1	0.1	0.0
Telecoms	1.3	0.5	(0.8)
Stations	9.5	12.7	3.2
Depots	0.0	0.0	0.0
Other	0.2	0.3	0.1
Total expenditure	**30.7**	**41.7**	**11.0**

Track – Work to address GCC caused some deferral of the track renewals programme. The plain line renewals expenditure was £6.8m, and the costs associated with GCC were expenditure of £3.6m for the Rail Recovery Plan and freight haulage costs of £0.8m.

Structures – The prolonged unprecedented bad weather caused embankment slips requiring remedial measures.

Signalling – The costs allocated to the route for the Thameslink Associated Signalling Works were £4.7m, £0.9m more than forecast. A number of schemes on the route did not progress as expected, including the following: Automatic Half Barrier level crossing renewals that were forecast at £1.1m, with actual expenditure of £0.5m, and the Channel Tunnel Route improvement project that was forecast at £1.0m, with actual expenditure at £0.2m. There was a £0.5m forecast for expenditure on Tonbridge FDM renewals, with no actual expenditure during the year. A further £0.3m was forecast and not spent for associated signalling works for Nunhead S&C.

Electrification – DC Switchgear renewals were forecast at £0.2m, with no actual expenditure. Conductor rail renewals were also less than forecast. There was slippage on the Connex CIS project.

Telecoms – The expenditure of £0.4m at Charing Cross and London Bridge was below the forecast.

Stations – The Station Regeneration Project (SRP) had, at the time of forecasting, been assumed to complete in 2000/01, but significant additional work was carried out at various stations. There was expenditure of £ 0.3m more than forecast at London Bridge, and £0.1m less at Charing Cross.

Other – This included expenditure on design and feasibility work (referred to as deferred fixed assets) that was not allocated to specific asset categories.

Enhancements

Table 79 Route 6 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Thameslink 2000	2006/07	6.5	8.5	2.0
CTRL	2003/04	17.3	5.5	(11.8)
Other committed schemes	Various	0.1	0.1	0.0
Class 375 route clearance	2000/01	0.4	0.3	(0.1)
TPWS: first pilot	2000/01	0.2	12.3	12.1
Total		24.5	26.7	2.2
Optional Enhancements				
London Bridge: redevelopment	-	-	1.4	
Other schemes	-	-		
Freight: gauge enhancements	-	-		
Charing Cross: improved station facilities	-	-	0.4	
London commuter area capacity: South Eastern	-	-		
Total		-	1.8	

Thameslink 2000 – The costs of the Public Inquiry, the Bechtel Programme Management Team, LUL design verification, and objectors' compensation were all higher than forecast.

CTRL – Track work and TDM replacement were rephrased to coincide with work on the Shortlands Grade Separated Junction.

Class 375 route clearance – There were delays in work progressing due the South Central refranchising activity.

TPWS: first pilot – The whole of the Thameslink 2000 area has now been completed, and this was not anticipated in the forecast. (All of the Thameslink 2000 TPWS cost have been allocated to Route 6).

Optional enhancements

London Bridge: redevelopment – Masterplan works did not progress due to on-going discussions with SRA, resulting in underspend of £6.6m.

Charing Cross: improved station facilities – Studies on the capacity and development of the station continued.

London commuter area capacity: South Eastern – SRA did not require this work to progress, as they concentrated their interest on the refranchising for Sussex and Wessex.

Route 7 – Derby to Bristol and Didcot via Birmingham

Renewals

Table 80 Route 7 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Great Western Zone			
Track	5.5	5.5	0.0
Structures	1.1	1.2	0.1
Signalling	1.4	1.4	0.0
Plant & Machinery	0.0	0.0	0.0
Telecoms	0.1	0.1	0.0
Stations	0.4	0.4	0.0
Depots	0.0	0.0	0.0
Other	0.0	0.0	0.0
Total expenditure	**8.5**	**8.6**	**0.1**
Midlands Zone			
Track	9.4	9.0	(0.4)
Structures	1.6	1.1	(0.5)
Signalling	2.9	0.3	(2.6)
Telecoms	0.0	0.0	0.0
Stations	0.5	0.3	(0.2)
Other	0.4	0.0	(0.4)
Total expenditure	**14.8**	**10.7**	**(4.1)**

Great Western Zone

Track – Additional expenditure of £0.3m on the National Recovery Programme was offset by deferred track renewals at Didcot North.

Structures – Additional fencing works were undertaken.

Signalling – Additional signalling costs of £0.2m were associated with Cheltenham High Street and Harefield S&C renewals, and these were offset by delay to Automatic Half Barrier level crossing conversions due to reallocation of signalling resources.

Midlands Zone

Track – Some renewals were deferred to allow resources to be deployed to better effect elsewhere.

Structures – The forecast included an estimate for 'Bridgeguard 3' work that would be performed during in partnership with the appropriate Local Authorities. The works were not necessary during 2000/1.

Signalling – The Saltley power signal box life extension works were deferred until 2001/2, to enable an overall strategy for the West Midlands area to be developed further. A detailed programme of works for Saltley has now been development, with £2.5m expected to be incurred in 2001/2.

Stations – The reactive property renewals were lower than originally anticipated. The development of lift schemes at various stations were put on hold until funding issues with train operating companies were resolved.

Other – The forecast assumed that the cost of moving the Zone Headquarters to the 'Mail Box' would be allocated across the Zone's routes. Actual costs have been allocated to Route 1.

Enhancements

Table 81 Route 7 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	0.3	0.3	0.0
TPWS *			0.6	0.6
Leamington Spa Car Park *			0.3	0.3
Cherwell Valley Resignalling *			0.2	0.2
Total		0.3	1.4	1.1
Optional Enhancements				
Cheltenham – Honeybourne – Stratford	-	-		
Banbury – Birmingham – Coventry: capacity	-	-		
Other schemes	-	-		
Oxford capacity improvements	-	-		
Cross – Country journey time and frequency improvements	-	-		
Didcot – Oxford: gauge clearance	-	-		
Nuneaton – Walsall: electrification	-	-		
Birmingham – Water Orton: capacity	-	-		
Total			0.0	0.0

* Note: Not specifically identified in the NMS forecasts

TPWS – There was acceleration of the original programme.

Leamington Spa Car Park – This scheme was introduced part way through the year as a response to a customer request. This scheme was not included in the forecast.

Cherwell Valley Resignalling – Development work was undertaken for resignalling of the Cherwell Valley to increase capacity of the signalling system. This was not included in the forecast.

Route 8 – North Trans - Pennine: Liverpool to Leeds, Hull and Scarborough

Renewals

Table 82 Route 8 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
London North Eastern Zone			
Track	5.3	6.5	1.2
Structures	3.6	3.7	0.1
Signalling	1.8	1.6	(0.2)
Plant & Machinery	0.1	0.0	(0.1)
Telecoms	1.0	0.3	(0.7)
Stations	15.3	10.7	(4.6)
Depots	0.0	0.1	0.1
Total expenditure	**27.1**	**22.9**	**(4.2)**
North West Zone			
Track	1.1	0.6	(0.5)
Structures	0.3	0.2	(0.1)
Signalling	0.3	0.2	(0.1)
Plant & Machinery	0.0	0.0	0.0
Telecoms	0.2	0.0	(0.2)
Stations	1.2	1.4	0.2
Depots	0.0	0.0	0.0
Other	0.0	0.0	0.0
Total expenditure	**3.1**	**2.4**	**(0.7)**

London North Eastern Zone

Track – There was £3.3m of expenditure associated with GCC work, and this was partly offset by deferral of rail renewals, drainage works and route clearance for Class 373s.

Plant & Machinery – The budget for Area Delivery Groups was re-allocated to SPAD mitigation work.

Telecoms – There was a £0.1m efficiency saving on the York concentrator, and the renewal programme did not progress as expected due to concentration on other areas.

Stations – Expenditure at Leeds was less than forecast.

North West Zone

Track – Deferral of work occurred due to GCC.

Structures – There were no major renewal items on this route, but there was re-prioritisation to undertake emergency tunnel repairs elsewhere.

Signalling – The volume of renewals achieved was less than forecast as scarce signalling resources were deployed on to the National TPWS programme.

Telecoms – Concentrator schemes at Guide Bridge and Ashburys were deferred allowing the utilisation of resources to deliver signalling schemes.

Enhancements

Table 83 Route 8 Enhancement expenditure (£m)

Committed Enhancements	Completion	NMS Forecast	Actual	Variance
Leeds Station	2001/02	3.6	7.1	3.5
Other committed schemes	Various	1.2	4.1	2.9
Huddersfield – Halifax: new services	2000/01	0.0	0.6	0.6
Total		**4.8**	**11.8**	**7.0**
Optional Enhancements				
North Trans – Pennine route: upgrade	-	-	0.4	
Freight: gauge enhancements	-	-		
ECML: Phase 1	-	-		
Other schemes	-	-	4.1	
North Trans – Pennine: Church Fenton remodelling	-	-		
Leeds: Station Regeneration Programme	-	-		
Cross – Country journey time and frequency improvements	-	-		
Hull Docks strategy	-	-		
Total		**-**	**4.5**	

Leeds Station – Some expenditure was associated with the Station Regeneration Programme.

Other committed schemes – There was £3.0m extra expenditure on TPWS, and £0.1m underspend on Northern Spirit station car park extensions, due to delay in agreeing the details of the works.

Huddersfield – Halifax: new services – The forecast expected all costs to be incurred during 1999/2000 for these works.

Optional enhancements

Other schemes – Works were undertaken at Neville Hill to accommodate Class 333 trains, on the Neville Hill carriage washer, Shipley Valley Road bridge, and Bridlington to Seamer Route Control Rationalisation.

Route 9 – Birmingham and Coventry to Peterborough

Renewals

Table 84 Route 9 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	0.5	0.9	0.4
Structures	2.4	4.8	2.4
Signalling	1.6	0.3	(1.3)
Telecoms	0.0	0.0	0.0
Stations	0.1	0.1	0.0
Other	0.0	0.0	0.0
Total expenditure	**4.6**	**6.1**	**1.5**

Track – There was re-prioritisation of the track renewals programme to target sites nationally affected by GCC, and so maximise the use of scarce resources.

Structures – Additional costs were associated with the increase of line speeds through Manton Tunnel, including the capitalisation of possession costs.

Signalling – The development work for the Nuneaton to Peterborough resignalling project was much slower than anticipated. The scheme is now spit into two- Nuneaton to Leicester and Leicester to Peterborough with the development of both schemes taking place in 2001/2, with implementation forecast for 2002/3.

Stations – Various minor changes to programme.

Enhancements

Table 85 Route 9 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	0.0	0.0	0.0
Total		0.0	0.0	0.0
Optional Enhancements				
Other schemes	-	-		
Nuneaton-Walsall: electrification	-	-		
Total		**-**	**0.0**	

Route 10 – Crewe to Newport via Shrewsbury

Renewals

Table 86 Route 10 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Great Western Zone			
Track	1.7	1.5	(0.2)
Structures	0.6	0.7	0.1
Signalling	0.1	0.2	0.1
Plant & Machinery	0.0	0.0	0.0
Telecoms	0.0	0.0	0.0
Stations	0.2	0.2	0.0
Depots	0.0	0.0	0.0
Total expenditure	**2.6**	**2.6**	**0.0**
Midlands Zone			
Track	2.8	1.9	(0.9)
Structures	0.2	0.1	(0.1)
Signalling	0.1	0.1	0.0
Telecoms	0.0	0.0	0.0
Stations	0.1	0.1	0.0
Other	0.4	0.0	(0.4)
Total expenditure	**3.6**	**2.2**	**(1.4)**

Great Western Zone

Track – The track renewal at Dorrington was deferred due to the GCC programme.

Structures – There were additional fencing works.

Signalling – There were additional costs associated with the Church Stretton S&C renewal.

Stations – There were various minor changes to work programme.

Midlands Zone

Track – There was re-prioritisation of the track renewals programme to target sites affected by GCC and maximise use of scarce resources.

Structures – There were various minor changes to the work programme.

Other – The forecast assumed that the cost of moving the Zone Headquarters to the 'Mail Box' would be allocated across the Zone's routes. Actual costs have been allocated to Route 1.

Enhancements

Table 87 Route 10 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	0.5	0.5	0.5
Total		**0.5**	**0.5**	**0.5**
Optional Enhancements				
Other schemes	-	-		
North and West: route - strategy improvements	-	-		
Total		-	**0.0**	

Route 11 – Wolverhampton to Chester, Aberystwyth and Pwllheli

Renewals

Table 88 Route 11 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	5.0	3.3	(1.7)
Structures	2.0	1.5	(0.5)
Signalling	0.3	0.2	(0.1)
Telecoms	0.1	0.0	(0.1)
Stations	0.4	0.3	(0.1)
Other	0.4	0.0	(0.4)
Total expenditure	**8.2**	**5.3**	**(2.9)**

Track – There was re-prioritisation of the track renewal programme to target routes affected by GCC and so maximise use of scarce resources.

Structures – There were various reductions in expenditure on embankment, fencing and minor structures renewals on the route.

Signalling – The renewal of signalling equipment in the Shrewsbury and Wellington areas has developed more slowly than anticipated. It is now expected that significant further development and the start of implementation will begin in 2001/02.

Stations – The reactive property expenditure was lower than originally forecast.

Other – The forecast assumed that the cost of moving the Zone Headquarters to the 'Mail Box' would be allocated across the Zone's routes. Actual costs have been allocated to Route 1.

Enhancements

Table 89 Route 11 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	0.0	0.0	0.0
Wellington: turnback facility	2000/01	0.1	0.3	0.2
Total		0.1	0.3	0.2
Optional Enhancements				
Other schemes	-	-		
Mid Wales: journey time improvements	-	-		
Total		**-**	**0.0**	

Wellington: turnback facility – The costs of the scheme were higher than forecast.

Optional enhancements

Mid Wales: journey time improvements – This scheme was progressed as part of the Incremental Output Statement project that was managed at network level.

Route 12 – Manchester and Crewe to North Wales

Renewals

Table 90 Route 12 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	2.7	2.2	(0.5)
Structures	1.0	2.0	1.0
Signalling	0.6	0.7	0.1
Plant & Machinery	0.0	0.0	0.0
Telecoms	0.8	0.0	(0.8)
Stations	0.1	1.9	1.8
Depots	0.1	0.0	(0.1)
Total expenditure	**5.3**	**6.8**	**1.5**

Track – Some planned work at Bodorgan and Pen-maenmawr was postponed due to the long welded rail train resources being diverted to GCC work. The work has been re-programmed for delivery in early 2001/02.

Structures – Additional work was undertaken on sea defences and embankments, predominantly at Llanfairfechan and Waverton. Additional fencing works were undertaken.

Signalling – Additional costs were incurred when the maintenance contract was used to provide resources to deliver the critical signalling scheme at Chester.

Telecoms – The Greenbank concentrator was re-phased to 2002/03 to allow resources to deliver signalling schemes elsewhere.

Stations – Actual spend on individual stations reflects detailed site scoping reviews rather than initial estimates contained within forecasts.

Enhancements

Table 91 Route 12 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	1.9	1.7	(0.2)
Chester-Bangor: journey time improvement	2000/01	0.3	0.5	0.2
Reinstatement of Eccles – Weaste line	2000/01	0.2	0.5	0.3
Total		**2.4**	**2.7**	**0.3**
Optional Enhancements				
Other schemes	-	-		
Freight: gauge enhancements	-	-		
Bidston - Woodchurch electrification	-	-		
Total		**-**	**0.0**	

Other committed schemes – There was underspend on TPWS implementation, as resources were directed to locations where risks were perceived to be higher.

Chester-Bangor: journey time improvement – The cost of the work has exceeded the scheme estimates.

Reinstatement of Eccles to Weaste line – There was an increase in scope for the scheme.

Route 13 – Manchester to Sheffield and North Lincolnshire

Renewals

Table 92 Route 13 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
London North Eastern Zone			
Track	5.0	5.2	0.2
Structures	1.0	2.4	1.4
Signalling	1.2	1.0	(0.2)
Plant & Machinery	0.0	0.2	0.2
Telecoms	0.1	0.1	0.0
Stations	0.4	1.5	1.1
Depots	0.0	0.1	0.1
Total expenditure	**7.7**	**10.5**	**2.8**
North West Zone			
Track	5.7	1.9	(3.8)
Structures	0.2	0.1	(0.1)
Signalling	0.0	0.0	0.0
Electrification	0.2	0.0	(0.2)
Plant & Machinery	0.0	0.0	0.0
Telecoms	0.1	0.0	(0.1)
Stations	0.0	0.0	0.0
Total expenditure	**6.2**	**2.0**	**(4.2)**

London North Eastern Zone

Track – There was additional expenditure associated with GCC work, and this was partly offset by deferral of rail renewals and track quality recovery work.

Structures – There was additional expenditure on tunnel works, the monitoring of structures and earthworks in Lincolnshire.

Signalling – There was some de-scoping of work on various signalling schemes.

Plant & Machinery – SPAD mitigation work was undertaken.

Telecoms – Reallocation of budget onto higher priority scheme (West Burton concentrator).

Stations – There was additional expenditure of £1.1m on Barnetby & Marske footbridge as the project was rephrased due to planning constraints.

Depots – There was additional spending on reactive services.

North West Zone

Track – The volume of renewals achieved was less than forecast as scarce resources were deployed on to the National GCC recovery programme.

Structures – Fencing work was re-programmed to accommodate critical work.

Electrification – The asset reliability improvement scheme was cancelled, as it did not offer sufficient benefits.

Telecoms – Non-critical minor re-cabling work was re-phased.

Enhancements

Table 93 Route 13 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed enhancements				
Other committed schemes	Various	0.2	1.2	1.0
Total		**0.2**	**1.2**	**1.0**
Optional enhancements				
Sheffield area: capacity improvements	-	-		
Other schemes	-	-	2.4	
Freight: gauge enhancements	-	-		
Total		**-**	**2.4**	

Other committed schemes – There was acceleration of the TPWS scheme.

Optional enhancements

Other schemes – There was £2.3m spent on Conisbrough Tunnel to enhance gauge clearance, and £0.1M on the Tinsley Avesta track diversion.

Route 14 – Edinburgh to Glasgow and Edinburgh to Aberdeen and Inverness

Renewals

Table 94 Route 14 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	5.0	9.3	4.3
Structures	11.2	11.7	0.5
Signalling	3.1	1.8	(1.3)
Electrification	0.0	0.0	0.0
Plant & Machinery	0.7	1.0	0.3
Telecoms	1.4	0.3	(1.1)
Stations	4.6	5.6	1.0
Depots	0.2	0.6	0.4
Other	0.0	0.0	0.0
Total expenditure	**26.2**	**30.3**	**4.1**

Track – There was £2.4m additional spent repairing GCC, and re-prioritisation of work from other routes resulted in an additional renewals of £1.9m.

Structures – £2.8m of work on the Forth Bridge was deferred to allow a revision of the implementation strategy. Additional work to cuttings and embankments for remedial works for the effects of flooding, e.g. at Larbert and Polmont, accounted for £3.4m overspend.

Signalling – The planned expenditure of £0.8m on Edinburgh wire degradation was reduced by £0.7m to allow an interface between the Edinburgh CrossRail new passenger services and the Masterplan to develop Edinburgh Waverley station to take place. Cable renewals at Perth underspent by £0.6m because of the lack of signalling resource.

Plant & Machinery – An additional £0.1m was spent on Wheelchex equipment rolled over from the previous year. There was £0.2m spent to improve the reliability of 'point ends' to improve performance.

Telecoms – The planned £0.2m on CIS renewals was lost due to reprioritisation of schemes. The planned £0.6m expenditure on extending the life of the Edinburgh Concentrator did not progress, in favour of renewing it over the next three years. Development of alternative telephones equipment costing £0.4m was cancelled, as there was insufficient justification.

Stations – An additional £0.4m was spent in repairing operational buildings, plus extra expenditure on the maintenance of particular stations facilities, for example canopies. An additional £0.6m was spent on general repairs to stations.

Depots – On Scotland Zone one £1.5m was been spent on the provision of new depot carriage washers, financed by a leasing agreement, with £0.5 is identified to this route.

Enhancements

Table 95 Route 14 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	5.4	4.5	(0.9)
Raithes Farm: new depot	2001	5.0	0.1	(4.9)
Total		**10.4**	**4.6**	**(5.8)**
Optional Enhancements				
Other schemes	-	-		
Freight: gauge enhancements	-	-		
Aberdeen-Inverness s and capacity	-	-		
Edinburgh – Glasgow: journey time improvement	-	-		
Stirling – Longannet - Kincardine Bridge: reopening of route	-	-		
Edinburgh Park: new station	-	-		
Stirling: Forth Side development	-	-		
Total		**-**	**0.0**	

Other committed schemes – There was an underspend of £2.1m on TPWS was due to the lack of signalling design resource and the delays in awarding contracts. This has been partially offset by £0.3m of small enhancements at Haymarket, Markinch, and Bishopbriggs. There were also £0.2m of development works to Inverness Eastgate commercial development, £0.1M on journey time reduction between Edinburgh and Glasgow and £0.3m on the Edinburgh CrossRail development.

Raithes Farm: new depot – Work was delayed to allow agreements to be made between the developers, the Local Authorities and Railtrack. An agreement is expected to allow work to commence in 2001.

Route 15 – West Anglia Main Line and Branches

Renewals

Table 96 Route 15 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	9.7	13.8	4.1
Structures	4.0	1.4	(2.6)
Signalling	15.6	15.8	0.2
Electrification	8.0	8.9	0.9
Plant & Machinery	0.5	0.1	(0.4)
Telecoms	1.8	0.9	(0.9)
Stations	3.7	9.3	5.6
Depots	0.1	0.1	0.0
Total expenditure	**43.4**	**50.3**	**6.9**

Track – Additional works were undertaken to control GCC and to remove wet spots.

Structures – There was reclassification of £2.6m of West Anglia Route Modernisation works to electrification for OLE structures, and to signalling for signal gantries.

Signalling – The reclassification of signal gantries from structures was off-set due to a reduction on other WARM schemes. There was a deferral of works into 2001/02 due to resources being redirected to ensure that a critical part of the West Coast Route Modernisation was completed.

Electrification – Reclassification of structures expenditure .

Plant & Machinery – Lift schemes at Broxbourne and Harlow Town were deferred, and will become enhancement schemes, as they are to convert goods lifts for passenger use to aid disabled access. Work on the Ely signalling supply point was deferred to 2002/03 and will be incorporated into a larger scheme that will reduce the number of category B SPADs on the route. We also spent an additional £0.1m on handites and other static equipment to improve performance when dealing with autumnal leaf fall.

Telecoms – We re-phased the implementation of the upgraded customer information system whilst continuing to work with our customer to confirm their specifications, giving a reduction of £1.3m. Additional expenditure of £0.4m was incurred on WARM as part of the overall reprogramming of the scheme due to signalling resources being redirected to ensure that a critical part of the West Coast Route Modernisation was completed.

Stations – Additional expenditure was needed to complete the SRP programme which was reprogrammed across the East Anglia Zone routes to take advantage of available possessions and plant. Also, an additional £1m was spent at March, to give disabled access to the island platform.

Enhancements

Table 97 Route 15 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	1.5	1.6	0.1
Thameslink 2000	2006/07	0.1	0.2	0.1
Total		**1.6**	**1.8**	**0.2**
Optional Enhancements				
London – Stansted: route capacity	-	-		
Stansted Airport: second tunnel	-	-		
Other schemes	-	-	0.5	
Total		**-**	**0.5**	

Other committed schemes – There was an increase on TPWS due to reprogramming work from other routes to target perceived higher risk sites.

Thameslink 2000 – The costs of the Public Inquiry, the Bechtel Programme Management Team, LUL design verification, and objectors' compensation were all higher than forecast.

Optional enhancements

London to Stansted route capacity – We are continuing to work with WAGN Railway, the SRA and BAA to determine the required enhancements. Work to design, develop and finance the capacity upgrades is proceeding more slowly than had previously been envisaged.

Stansted Airport second tunnel – This scheme has now been incorporated into an Incremental Output Statement requirement that is looking to increase capacity from Peterborough to Stansted Airport, and is currently being negotiated with the SRA.

Other schemes – Enhancements have been carried out at Rye House and Walthamstow St James Street stations.

Route 16 – Great Eastern Main Line and Branches

Renewals

Table 98 Route 16 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	7.1	40.1	33.0
Structures	2.7	4.5	1.8
Signalling	4.0	4.5	0.5
Electrification	1.4	1.0	(0.4)
Plant & Machinery	0.5	0.6	0.1
Telecoms	2.0	2.0	0.0
Stations	7.7	5.5	(2.2)
Depots	0.4	0.1	(0.3)
Total	**25.8**	**58.3**	**32.5**

Track – There were major additional works costing £32.1m to repair GCC on the Great Eastern (GE) route, which is a major artery with considerable pressures in terms of capacity and performance, coupled with high linespeeds. Installation of Wheelchex and additional expenditure on the Norwich to Cromer resignalling project, to ensure the successful introduction of new technology, contributed to the variance.

Structures – Severe weather affected embankments at Rayleigh, Marks Tey and Shenfield resulted in an additional £1.3m in repairs. An additional £0.5m was spent on the Norwich to Cromer resignalling project to ensure the successful introduction of new technology.

Signalling – The additional expenditure is due a financial adjustment from Telecoms renewals and Outside Party funded enhancements.

Electrification – The OHL renewals scheme was re-scoped, deferred by a year and has now been split over both GE and LTS routes for 2001/02 and 2002/03. This led to £0.9M underspend, which was offset by the completion of OHL works to underbridges to allow higher linespeeds between Shenfield and Stratford.

Plant & Machinery – An additional £0.1m was spent on handites and other static equipment to improve performance when dealing with autumnal leaf fall.

Stations – There was underspend of £1.8m at Liverpool Street, and SRP work has been completed. There was also a reduction on station footbridges at Wickford, Rayleigh, Hockley and Rochford due to detailed assessments showing that less work was needed than originally anticipated. The Zone's SRP programme, which was completely reprogrammed across all routes to take advantage of available possessions and plant, led to a further reduction of £1m.

Depots – The scope of the work for the replacement of the depot protection system at Ilford, originally valued at £0.4m, was still being defined with the customer. An additional £0.1m was spent at Norwich Riverside on hard standing as part of the works needed to facilitate a major development of the site.

Enhancements

Table 99 Route 16 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	2.2	5.0	2.8
Marks Tey – Colchester: operational flexibility improvements	2006	0.0	0.0	0.0
Stratford Station enhancement	2002	0.3	0.0	(0.3)
Ipswich Station enhancement	2001	0.8	0.8	0.0
Platform extensions for Class 170	2001	0.3	0.2	(0.1)
Total		**3.6**	**6.0**	**2.4**
Optional Enhancements				
Felixstowe – Nuneaton: additional capacity for freight	-	-		
Other schemes	-	-	0.6	
Felixstowe – Nuneaton: gauge enhancements	-	-		
Hythe: proposed new station	-	-		
Liverpool Street station *			1.9	
Total		-	**2.5**	

* Note: Not specifically identified in the NMS forecasts

Other committed schemes – There was an increase of £2.9m on TPWS due to reprogramming work from other routes to target perceived higher risk sites. There was also a financial adjustment to Outside Party funded signalling renewals, which was offset by the completion of the Norwich and Ipswich shops scheme.

Marks Tey to Colchester operational flexibility improvements – This scheme was deferred until a full resignalling scheme for the Colchester to Clacton route takes place, which is still in the early planning stages.

Stratford Station enhancement – Work is ongoing with customer to define the scope of the project.

Platform extensions for Class 170 – This scheme was successfully completed below budget.

Optional enhancements

Other schemes – We have continued to work with our customer, and this has led to a number of smaller scheme substitutions and other schemes being put forward. On the GE route enhancements have been carried out at Liverpool Street IECC to improve power supplies, and to facilitate a property development, at a cost of £0.2m. Freight depot enhancements of £0.2m were carried out at Ipswich Upper and Lower Yards, and car parks works of £0.2m.

Felixstowe to Nuneaton gauge enhancements – The expenditure on this scheme has been allocated to enhancement expenditure at the network level.

Hythe proposed new station – We are continuing negotiations with a prospective developer.

Liverpool Street station – There was an underspend of £1.6m.

Route 17 – London, Tilbury and Southend

Renewals

Table 100 Route 17 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	3.3	8.6	5.3
Structures	1.4	1.1	(0.3)
Signalling	0.4	0.6	0.2
Electrification	0.3	0.0	(0.3)
Plant & Machinery	0.3	0.0	(0.3)
Telecoms	0.8	0.0	(0.8)
Stations	1.5	3.0	1.5
Depots	1.0	0.0	(1.0)
Total expenditure	**9.0**	**13.3**	**4.3**

Track – The LTS route suffered only minor disruption to GCC, and there was an overall reduction of £2.7m due to resources being targeted to the GE route. An additional £8.0m was spent on outside party funded trackworks at Ripple Lane and Dagenham Dock to facilitate the future construction of the Channel Tunnel Rail Link.

Structures – There was a reallocation of resources to the GE route to stabilise embankments following severe weather, which was partially offset by outside party work being undertaken on behalf of LUL at Devon's Road Bridge

Electrification – The scheme to rewire the OHL between Barking and Shoeburyness was been deferred until 2002/03 whilst condition reports and scope was defined.

Plant & Machinery – Several minor schemes were deferred whilst work continued to ensure optimum solutions were found.

Telecoms – The customer, c2c, decided to carry out their own funded scheme to upgrade customer information systems, resulting in a reduction of £0.8m.

Stations – East Anglia Zone's SRP programme, which was completely reprogrammed across all routes to take advantage of available possessions and plant, led to an increase in expenditure of £1.2m. An additional £0.3m was spent on upgrading a goods lift to passenger use at Leigh-on-Sea.

Depots – Work is ongoing with our customer to define the scope of works to replace the depot protection system at East Ham Depot, resulting in an underspend of £0.5m. The Zone's SRP programme, which was completely reprogrammed across all routes to take advantage of available possessions and plant, contributed to a further reduction of £0.5m.

Enhancements

Table 101 Route 17 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	1.5	0.0	(1.5)
Station improvements	2000/01	0.0	0.0	0.0
Total		**1.5**	**0.0**	**(1.5)**
Optional Enhancements				
Other schemes	-	-	1.9	
Freight: gauge enhancements	-	-		
Fenchurch Street – Upminster, Grays, and Southend Central: journey time reduction	-	-		
Barking Reach: new station	-	-		
Total		-	**1.9**	

Other committed schemes – There was a reduction of £1.5M on TPWS due to the Zone concentrating on Great Western and West Anglia routes which were perceived to have higher risk sites.

Optional enhancements

Other schemes – National Express took over the business of Prism Rail towards the end of 2000 and now runs the c2c franchise. This has contributed to a number of smaller scheme substitutions along with additional schemes being proposed by the customer. The c2c rebranding project carried on in development form only, spending £0.3m. Completion of the Chafford Hundred fixed link to the Lakeside shopping development cost £0.5m, and carrying out station enhancements at Pitsea and Upminster as well as additional lineside fencing in order to combat trespass and vandalism, contributed to another £1m. Upgrades of £0.1m were also made to the carriage washers at Shoeburyness and East Ham.

Fenchurch Street to Upminster, Grays, and Southend Central journey time reduction – Work has continued on feasibility to reduce journey times on the route, which may now be achieved by c2c introducing their new Class 357 Electrostar trains.

Route 18 – Chatham Main Line and North Kent

Renewals

Table 102 Route 18 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	7.9	23.2	15.3
Structures	2.8	6.2	3.4
Signalling	29.0	18.3	(10.7)
Electrification	0.8	3.0	2.2
Plant & Machinery	0.1	0.6	0.5
Telecoms	0.2	0.1	(0.1)
Stations	9.6	4.5	(5.1)
Depots	0.0	0.0	0.0
Other	0.1	(0.3)	(0.4)
Total expenditure	**50.5**	**55.6**	**5.1**

Track – The additional work associated with GCC was £2.6m. There was a retrospective adjustment from signalling totalling £13.7m for the Dartford Area Resignalling Scheme (DARS).

Structures – Emergency embankment works due to the prolonged severe weather cost an additional £2.4m. The collapse in Strood Tunnel cost £2.5m.

Signalling – There was a retrospective accounting adjustment that transferred £13.7m of works to the track category for DARS. There were also changes to the forecast programme affecting minor signalling works, automatic half barrier level crossing renewals, Sheerness Branch resignalling and Angerstein interlocking renewals.

Electrification – Additional expenditure of £1m has been included within the accounts for DARS electrification as a retrospective adjustments, and this was not forecast.

Plant & Machinery – Additional costs of £0.5m were allocated from DARS.

Telecoms – Reduced allocation to this route of costs for small/medium concentrator renewals.

Stations – The forecast did not accurately reflect the volume of work needed for the route. In meeting our overall commitments, resources were allocated to other routes.

Other – Costs associated with DARS were re-allocated.

Enhancements

Table 103 Route 18 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	1.4	0.4	(1.0)
Thameslink 2000	2006/07	0.3	0.0	(0.3)
Total		**1.7**	**0.4**	**(1.3)**
Optional Enhancements				
Other schemes	-	-		
London commuter area capacity: South Eastern	-	-		
Route clearance for Class 365/375	-	-		
Total		**-**	**0.0**	

Other committed schemes – No DARS enhancement expenditure was incurred, compared with a forecast of £0.9m. The total cost for Class375/465 projects were £0.4m. Costs of £0.2m for TPWS were allocated to the route.

Thameslink 2000 – None of the scheme's development costs were allocated to this route.

Route 19 – Brighton Main Line and South London network

Renewals

Table 104 Route 19 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	5.5	12.9	7.4
Structures	2.7	6.5	3.8
Signalling	0.5	10.5	10.0
Electrification	0.8	0.2	(0.6)
Plant & Machinery	0.1	0.3	0.2
Telecoms	4.8	3.2	(1.6)
Stations	10.9	23.5	12.6
Depots	0.0	0.5	0.5
Other	0.2	0.2	0.0
Total expenditure	**25.5**	**57.8**	**32.3**

Track – The costs of rerailing for GCC was £8.1m. The original plan for plain line renewals was severely affected.

Structures – The prolonged unprecedented bad weather required emergency embankment works costing £2.4m.

Signalling – Horsham Area Resignalling cost an additional £5.8m, and the allocation of the Thameslink 2000 development costs were £0.4m more than forecast. Also the forecast did not reflect the full budget estimate of the Horsham scheme.

Electrification - Conductor rail renewals were less than forecast.

Plant & Machinery – Various minor additional schemes.

Telecoms – The costs of schemes undertaken were significantly less than the forecast allocation to the route.

Stations – The Station Regeneration Project (SRP) had, at the time of forecasting, been assumed to complete. However, £18.7m of works were required to achieve the programme. There was also an additional £1.4m expenditure at Victoria, with SRP work now complete.

Depots – Various works arose that were not anticipated in the forecast.

Enhancements

Table 105 Route 19 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Thameslink 2000	2006/07	5.9	13.8	7.9
Other committed enhancements	Various	24.4	9.4	(15.0)
Victoria Station	Various	2.0	2.0	0.0
Victoria carriage road upgrade	2000/01	0.7	0.7	0.0
Total		**33.0**	**25.9**	**7.1**
Optional Enhancements				
Brighton Main Line: upgrade	-	-		
London commuter area capacity: South Central	-	-		
Other schemes	-	-		
South London: journey time improvements	-	-		
Victoria Station	-	-	2.0	
Total		**-**	**2.0**	

Thameslink 2000 – The costs of the Public Inquiry, the Bechtel Programme Management Team, LUL design verification, and objectors' compensation were all higher than forecast.

Other committed enhancements – The TPWS expenditure of £7.1m for to this route compared to an allocation of £22.0m in the forecast. There were costs of £1.5m associated with the South Central refranchising.

Victoria Station – The feasibility study for extension of the airline check-in facilities is underway. CIS work has been deferred to fit in with other development work.

Route 20 – South Coastal Route: Portsmouth to Ashford

Renewals

Table 106 Route 20 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	4.3	1.9	(2.4)
Structures	1.4	2.5	1.1
Signalling	0.4	1.4	1.0
Electrification	0.8	1.4	0.6
Plant & Machinery	0.1	0.1	0.0
Telecoms	0.4	1.3	0.9
Stations	0.9	2.6	1.7
Depots	0.0	(0.1)	(0.1)
Other	0.1	0.1	0.0
Total expenditure	**8.4**	**11.2**	**2.8**

Track – The impact of GCC on this route was not severe, and £0.4m was spent on GCC related work. Overall expenditure was less than forecast as resources were switched to more severely affected routes.

Structures – The prolonged unprecedented bad weather caused embankment slips that required emergency repairs.

Signalling – Expenditure on the Wessex area investment schemes was above forecast, and was allocated between the Wessex routes.

Electrification – The allocation of costs to the route was higher than forecast.

Telecoms – The allocation of costs to the route for telephone concentrator renewals was higher than forecast.

Stations – There were £1.2m of additional Station Regeneration Project (SRP) works.

Depots – A retrospective accounting adjustment was made.

Enhancements

Table 107 Route 20 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Thameslink 2000	2006/07	0.3	0.2	(0.1)
Other committed schemes	Various	0.1	0.5	0.4
Total		**0.4**	**0.7**	**0.3**
Optional Enhancements				
Other schemes	-	-		
Total		**-**	**0.0**	

Thameslink 2000 – The project development costs allocated to the route were less than the forecast.

Other committed schemes – The costs of the Connex CIS allocated to this route were higher than forecast.

Route 21 – London to Portsmouth and Weymouth

Renewals

Table 108 Route 21 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	11.0	14.8	3.8
Structures	2.8	5.5	2.7
Signalling	4.3	7.0	2.7
Electrification	1.6	1.6	0.0
Plant & Machinery	0.2	0.1	(0.1)
Telecoms	3.3	3.5	0.2
Stations	16.1	16.8	0.7
Depots	0.4	0.0	(0.4)
Other	0.2	0.2	0.0
Total expenditure	**39.9**	**49.5**	**9.6**

Track – The costs associated with GCC were £4.4m, and some planned renewals were deferred.

Structures – The prolonged unprecedented bad weather caused embankment slips requiring emergency works costing £1m.

Signalling – The Dorset Coast Resignalling scheme cost £0.9m above forecast. The Area Delivery Group Wessex investment project spent £0.2m on this route that was not forecast in the NMS. Various other schemes incurred additional costs.

Stations – The Station Regeneration Project (SRP) work on the route was less than forecast. A saving of £2.0m was made on the SRP expenditure at Waterloo.

Depots – Works at Wimbledon depot slipped as agreement with train operator was awaited.

Enhancements

Table 109 Route 21 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	0.0	2.1	2.1
SWT: car-park and security enhancements	2001/02	0.2	0.5	0.3
SWT: customer information system	2001/02	0.0	1.1	1.1
Thameslink 2000	2006/07	0.0	0.0	0.0
Total		**0.2**	**3.7**	**3.5**
Optional Enhancements				
London commuter area capacity: South Western	-	-		
Other schemes	-	-		
Waterloo Station	-	-	0.3	
Total		**-**	**0.3**	

Other committed schemes – A cost of £0.6m was allocated to this route for the SW Franchise project, costs of £0.9m were allocated for TPWS, there were £0.3m of costs for Ashford platform extension works, and £0.1m for Farnham platform extension works. Work at East Wimbledon LMD cost £0.2m.

SWT car park and security enhancements – Costs of £0.3m were allocated for car park extensions, and £0.2m for CCTV enhancements.

SWT customer information system – The expenditure was for public announcement and CIS equipment.

Optional enhancements

Waterloo Station – Studies were undertaken to accommodate SWT's plans for increased passenger numbers across the concourse.

Route 22 – Wessex routes

Renewals

Table 110 Route 22 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Great Western Zone			
Track	1.2	1.2	0.0
Structures	0.4	0.5	0.1
Signalling	0.2	0.2	0.0
Plant & Machinery	0.0	0.0	0.0
Telecoms	0.0	0.0	0.0
Stations	0.2	0.2	0.0
Depots	0.0	0.0	0.0
Total expenditure	**2.0**	**2.1**	**0.1**
Southern Zone			
Track	7.9	2.4	(5.5)
Structures	2.8	3.3	0.5
Signalling	1.9	1.7	(0.2)
Electrification	1.6	0.1	(1.5)
Plant and Machinery	0.2	0.1	(0.1)
Telecoms	0.6	1.0	0.4
Stations	1.8	1.6	(0.2)
Depots	0.0	0.0	0.0
Other	0.2	0.1	(0.1)
Total expenditure	**17.0**	**10.3**	**(6.7)**

Great Western Zone

Structures – There were additional fencing works.

Southern Zone

Track – The impact of GCC was relatively light, and renewals work was reduced to give priority to repair work elsewhere.

Structures – Bad weather caused embankment slips that required £1m emergency repairs.

Signalling – There were cost savings on the AHB level crossing renewals project.

Electrification – The original forecast did not properly reflect the cost allocation for various renewal schemes.

Telecoms – The additional expenditure was on the SWT CIS.

Stations – There were changes to scope of work at various stations.

Enhancements

Table 111 Route 22 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	2.6	3.8	1.2
SWT: car park and security improvements	2001/02	0.0	0.5	0.5
SWT: customer information systems	2001/02	0.0	0.0	0.0
Total		2.6	4.3	1.7
Optional Enhancements				
Other schemes				
Total			**0.0**	

Other committed schemes – We undertook various additional works. There was £1.2m expenditure on Salisbury LMD as opposed to a forecast of £2.3m.

SWT car park and security enhancements – There was £0.3m of expenditure allocated to the route for car park extensions, and £0.2m for CCTV enhancements.

SWT customer information system – No expenditure was allocated to this route.

Route 23 – Clapham Junction to Reading and branches

Renewals

Table 112 Route 23 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	8.1	4.1	(4.0)
Structures	3.0	3.7	0.7
Signalling	0.7	1.2	0.5
Electrification	1.6	2.9	1.3
Plant & Machinery	0.2	0.1	(0.1)
Telecoms	2.0	1.0	(1.0)
Stations	4.1	4.0	(0.1)
Depots	0.0	0.0	0.0
Other	0.1	0.1	0.0
Total expenditure	**19.8**	**17.1**	**(2.7)**

Track – The impact of GCC was relatively light, and renewals work was reduced to give priority to repair work elsewhere.

Structures – Additional work was undertaken to earthworks following the prolonged unprecedented bad weather.

Signalling – The forecast underestimated the Area Delivery Group Wessex performance investment schemes.

Electrification – The forecast underestimated a number of projects, so that expenditure on the Electrification Asset Renewals programme was higher than the forecast.

Plant & Machinery – There were various minor changes in scope.

Telecoms – The Feltham renewal project was not let until January 2001.

Enhancements

Table 113 Route 23 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	0.2	0.9	0.7
SWT: car park and security improvements	2001/02	0.0	0.2	0.2
SWT: customer information system	2001/02	0.0	0.0	0.0
Total		**0.2**	**1.1**	**0.9**
Optional Enhancements				
London commuter area capacity: South Western	-	-		
Southern link to Heathrow	-	-	0.2	
Other schemes	-	-		
Total		**-**	**0.2**	

Other committed schemes – The costs of platform clearance work at Reading for Class 458 rolling stock was £0.2m, TPWS expenditure was £0.1M, £0.6m was allocated for SW Franchise work; and £0.1m for Class 170 gauge clearance.

SWT car park and security improvements – Cost of CCTV works.

Optional enhancements

Southern link to Heathrow – Work on this project was suspended awaiting funding from SRA.

Route 24 – Isle of Wight: Ryde to Shanklin

Renewals

Table 114 Route 24 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Structures	0.3	0.1	(0.2)
Signalling	0.0	0.0	0.0
Electrification	0.0	0.0	0.0
Stations	0.9	0.1	(0.8)
Total expenditure	**1.2**	**0.2**	**(1.0)**

Structures – The forecast did not accurately reflect the work to be undertaken.

Stations – The forecast did not accurately reflect the work to be undertaken.

Enhancements

Table 115 Route 24 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
No schemes	-	0.0	0.0	0.0
Total		0.0	0.0	0.0

Route 25 – Chiltern Line

Renewals

Table 116 Route 25 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	3.0	7.0	4.0
Structures	2.4	2.5	0.1
Signalling	1.4	0.6	(0.8)
Plant & Machinery	0.0	0.0	0.0
Telecoms	0.0	0.0	0.0
Stations	0.2	0.2	0.0
Other	0.4	0.0	(0.4)
Total expenditure	**7.4**	**10.3**	**2.9**

Track – There was re-prioritisation of the track renewals programme to target sites affected by GCC and maximise the use of scarce resources.

Signalling – Various schemes did not progress as expected.

Other – The forecast assumed that the cost of moving the Zone Headquarters to the 'Mail Box' would be allocated across the Zone's routes. Actual costs have been allocated to Route 1.

Enhancements

Table 117 Route 25 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	0.0	3.1	3.1
Chiltern Line capacity works *	-	-	(0.6)	(0.6)
Total		**0.0**	**2.5**	**2.5**
Optional Enhancements				
Chiltern upgrade	-	-		
Other schemes	-	-		
Total		**-**	**0.0**	

* Note: Not specifically identified in the NMS forecasts

Other committed schemes – These were the development costs of the Evergreen project to upgrade the route to meet Chiltern Railways/SRA requirements.

Chiltern Line capacity works – This was a credit for the scheme completed in 1998.

Route 26 – North London Line

Renewals

Table 118 Route 26 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	4.1	6.2	2.1
Structures	3.3	2.0	(1.3)
Signalling	0.2	0.2	0.0
Electrification	0.1	0.0	(0.1)
Plant & Machinery	0.2	0.0	(0.2)
Telecoms	0.7	0.0	(0.7)
Stations	0.6	0.1	(0.5)
Depots	0.8	0.0	(0.8)
Total expenditure	**10.0**	**8.5**	**(1.5)**

Track – This route suffered only minor disruption due to GCC, this led to an increase of £1.2m. An additional £0.9m was spent on repairs following a freight train derailment on Camden Viaduct.

Structures – There was a reallocation of resources between routes to stabilise embankments following severe weather.

Plant & Machinery – Several minor plant & machinery schemes have been deferred whilst awaiting condition reports.

Telecoms – Work is continuing with our customer to finalise the scope needed to replace the Long Line Public Address system at Willesden, so limited costs have been incurred.

Stations – The Zone's SRP programme which was completely reprogrammed across all routes to take advantage of available possessions and plant, has led to an underspend on the route.

Depots – The East London HV supplies scheme has been reclassified as station AMP and transferred to the LTS route.

Enhancements

Table 119 Route26 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	1.5	0.0	1.5
Total		***0.5**	**0.0**	**1.5**
Optional Enhancements				
Freight: around London	-	-		
Other schemes	-	-	0.4	
Heathrow – St Pancras: rail link	-	-		
Freight: gauge enhancements	-	-		
Total		**-**	**0.4**	

* Note: This was a typographic error in the NMS, and should have read £1.5m.

Other committed schemes – There was a reduction of £1.5m on TPWS due to the Zone concentrating resources on GE and WA routes which were perceived as having higher risk sites.

Optional enhancements

Other schemes – Feasibility work was undertaken on the East London Line, but this was suspended awaiting agreement with DTLR, LUL, TfL, and the Mayor of London.

Route 27 – Cotswolds

Renewals

Table 120 Route 27 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	0.9	0.9	0.0
Structures	0.5	0.6	0.1
Signalling	0.0	0.0	0.0
Plant & Machinery	0.0	0.0	0.0
Telecoms	0.2	0.2	0.0
Stations	0.2	0.2	0.0
Depots	0.0	0.0	0.0
Total expenditure	**1.8**	**1.9**	**0.1**

Structures – There was additional expenditure on fencing works.

Enhancements

Table 121 Route 27 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	0.5	0.5	0.0
Total		0.5	0.5	0.0
Optional Enhancements				
East - West Rail Link	-	-		
Cotswold line: additional capacity	-	-		
Other schemes	-	-		
Thames Trains: car park improvements	-	-		
Total		-	0.0	

Route 28 – Cardiff Valleys

Renewals

Table 122 Route 28 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	1.3	1.2	(0.1)
Structures	0.5	0.6	0.1
Signalling	0.8	0.8	0.0
Plant & Machinery	0.0	0.3	0.3
Telecoms	0.0	0.0	0.0
Stations	0.7	0.1	(0.6)
Depots	0.0	0.0	0.0
Total expenditure	**3.3**	**3.0**	**(0.3)**

Track – There was £0.2m additional expenditure on the National Recovery Programme, offset by £0.3m deferred renewals at Llanbradach and Caerphilly.

Structures – Additional fencing works.

Plant & Machinery – This was expenditure on the Bargoed Station scheme.

Stations – Platform/canopy works were removed from the scope of the works at Pontpridd Station.

Enhancements

Table 123 Route 28 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Cardiff Valley: customer information system	2000/01	1.0	0.0	(1.0)
Other committed schemes	Various	0.6	2.7	2.1
Mountain Ash: land reclamation and new loop	2001/02	1.9	2.8	0.9
Cardiff Valley: journey time improvement	2000/01	0.4	0.6	0.2
Bargoed North Station: enhancement	2000/01	0.7	0.4	(0.3)
Total		**4.7**	**6.5**	**1.9**
Optional Enhancements				
Cardiff Queen Street: capacity	-	-	1.2	
Rhymney Valley: modernisation	-	-	0.6	
Taff Vale North: modernisation	-	-		
Barry – Bridgend: route upgrade	-	-	0.5	
Total		**-**	**2.3**	

Other committed schemes – There was acceleration of the TPWS project.

Mountain Ash: land reclamation and new loop – There was acceleration of works to complete in 2000/2001.

Bargoed North Station – Accelerated expenditure occurred in1999/2000, that was not included in the forecast.

Route 29 – West Wales

Renewals

Table 124 Route 29 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	1.8	1.3	(0.5)
Structures	0.4	0.5	0.1
Signalling	0.1	0.1	0.0
Plant & Machinery	0.0	0.0	0.0
Telecoms	0.0	0.0	0.0
Stations	0.2	0.2	0.0
Total expenditure	**2.5**	**2.1**	**(0.4)**

Track – There were deferred track renewals at Llangynllo, Pembroke, Sugar Loaf, St Clears and Haverfordwest due to the GCC programme.

Structures – Additional fencing works were undertaken.

Enhancements

Table 125 Route 29 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	0.3	0.3	0.0
Total		**0.3**	**0.3**	**0.0**
Optional Enhancements				
Other schemes	-	-		
West Wales: journey time improvements	-	-		
Total		**-**	**0.0**	

Route 30 – West Midlands local routes

Renewals

Table 126 Route 30 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	7.0	5.7	(1.3)
Structures	1.5	1.4	(0.1)
Signalling	3.1	2.6	(0.5)
Electrification	0.0	0.4	0.4
Plant & Machinery	0.1	0.0	(0.1)
Telecoms	0.0	0.0	0.0
Stations	0.7	1.3	0.6
Other	0.4	0.0	(0.4)
Total expenditure	**12.8**	**11.4**	**(1.4)**

Track – There was re-prioritisation of the track renewal programme to target routes affected by GCC, and maximise the use of scarce resources.

Signalling – The Walsall to Ryecroft signalling renewal cost £0.2m less than originally forecast. The balance of variance relates to an underspending of the money available on performance initiatives and minor works that were deferred to 2001/02.

Electrification – There was £0.2m incurred on schemes targeted at performance improvement, and £0.2m incurred on Birmingham Cross City balancing works, that were not included in the forecast.

Stations – An increase of £0.3m in the level of reactive maintenance was required in the year, and there were increased costs of £0.2m associated with the renewal element of the Aston Lifts scheme.

Other – The forecast assumed that the cost of moving the Zone Headquarters to the 'Mail Box' would be allocated across the Zone's routes. Actual costs have been allocated to Route 1.

Enhancements

Table 127 Route 30 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	1.3	0.0	(1.3)
Aston: lifts	2001	0.2	0.4	0.2
Walsall Yard *			0.2	0.2
Midland Metro *			0.2	0.2
Total		**1.5**	**0.8**	**(0.7)**
Optional Enhancements				
Other schemes	-	-		
Birmingham – Water Orton: capacity	-	-		
Total		**-**	**0.0**	

* Note: Not specifically identified in the NMS forecasts

Other committed schemes – The TPWS programme was deferred to allow the resources to be allocated to locations that were perceived to have higher risk.

Aston Lifts – The cost of the scheme was greater than anticipated, due to need to acquire land and other project issues.

Walsall Yard – The development was not included in the forecast, as this was a subsequent reaction to a customer requirement.

Midland Metro – There were costs of the pre-feasibility work associated with phase 2 of the Metro works towards Merry Hill and in the Birmingham city centre.

Route 31 – East Midlands local routes

On 1 April 2000 the parts of the route to the east of Newark and Grantham were transferred from Midland Zone to London North East Zone. The forecasts of expenditure were compiled before the decision to split the route. Actual expenditure is reported against the respective Zone.

Renewals

Table 128 Route 31 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance *
Midlands Zone			
Track	4.8	3.9	2.3
Structures	2.1	2.1	0.5
Signalling	5.4	1.1	(3.6)
Plant & Machinery	0.0	0.0	0.0
Telecoms	0.0	0.0	0.0
Stations	0.5	0.4	0.0
Depots	0.0	0.0	0.1
Other	0.4	0.0	(0.3)
Total expenditure	**13.2**	**7.5**	**(1.0)**
London North Eastern Zone			
Track		3.2	
Structures		0.5	
Signalling		0.7	
Plant & Machinery		0.0	
Telecoms		0.0	
Stations		0.1	
Depots		0.1	
Other		0.1	
Total expenditure		**4.7**	

* Note: The variance is the combined variance taking account of the expenditure for both zones

Track – There was additional expenditure to repair GCC.

Structures – There were emergency repair works at Metheringham.

Signalling – The work on various level crossings on the route was deferred until 2001/02, and the schemes are now in the design and development phase.

Other – The forecast assumed that the cost of moving the Zone Headquarters to the 'Mail Box' would be allocated across the Zone's routes. Actual costs have been allocated to Route 1.

Enhancements

Table 129 Route 31 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	0.0	0.0	0.0
Total		*0.9	0.0	0.0
Optional Enhancements				
Matlock-Buxton route: reopening	-	-		
Other schemes	-	-	3.0	
Cross – Country journey time and frequency improvements	-	-		
Total		**-**	**3.0**	

* Note: There was a typographic error in the NMS – this figure should have read 0.0

Optional enhancements

Other schemes – There was £2.0m spent on the Joint Line, £0.8m on the Automatic Warning System, and £0.1m on the Lincoln resignalling.

Route 32 – Merseyside

Renewals

Table 130 Route 32 Renewals expenditure (£m) (£m)

	NMS Forecast	Actual	Variance
Track	2.7	5.9	3.2
Structures	1.1	1.4	0.3
Signalling	0.8	0.4	(0.4)
Electrification	1.0	0.7	(0.3)
Plant & Machinery	0.0	0.6	0.6
Telecoms	0.9	1.1	0.2
Stations	4.2	2.9	(1.3)
Depots	0.6	0.7	0.1
Other	0.0	0.0	0.0
Total expenditure	**11.3**	**13.7**	**2.4**

Track – Additional schemes were undertaken at Chester, Ellesmere Port, Green Lane, Port Sunlight and Ledsham.

Structures – A fire at Sandhills bridge required additional work to strengthen the brick arch overbridge.

Signalling – Volume of renewals achieved was less that forecast as scarce signalling resources were deployed on to the National TPWS programme.

Electrification – Expenditure on Bankhall transformers and cabling was less than forecast.

Plant & Machinery – See electrification.

Telecoms – Additional telephones were installed as part of the SRP scheme. A new concentrator was installed at Liverpool Lime street along with new long line public address equipment on 27 Merseyrail stations.

Stations – Actual spend on individual stations reflects detailed site scoping reviews rather than initial estimates contained with forecasts.

Enhancements

Table 131 Route 32 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	0.9	0.4	(0.5)
Total		**0.9**	**0.4**	**(0.5)**
Optional Enhancements				
Liverpool Underground: Phase II	-	-	7.0	
Other schemes	-	-	8.9	
Allerton: interchange	-	-		
North Trans-Pennine: gauge enhancement	-	-		
Total		**-**	**16.3**	

Other committed schemes – Resources for TPWS installation was redirected to other locations on the network where the risks were perceived to be greater.

Optional enhancements

Liverpool Underground: Phase II – Work was carried out at Hamilton Square, Moorfields and Central stations, and included refurbishment to internal linings, ventilation equipment, and lifts; and the replacement of water pipes, power supplies, and fire extinguisher systems.

Other schemes – These works included new stations at Conway Park, Lea Green (Marshalls Cross), and Wavertree Technology Park; station refurbishment at Kirkdale and Old Roan; and TPWS works.

Route 33 – Manchester to the coast

Renewals

Table 132 Route 33 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	5.4	4.7	(0.7)
Structures	1.3	1.4	0.1
Signalling	1.3	0.8	(0.5)
Electrification	0.0	0.0	0.0
Plant & Machinery	0.0	0.0	0.0
Telecoms	0.2	0.0	(0.2)
Stations	7.7	5.4	(2.3)
Depots	1.5	0.7	(0.8)
Other	0.0	0.0	0.0
Total expenditure	**17.4**	**13.0**	**(4.4)**

Track – Some renewals were deferred due priority being given to GCC work on other routes.

Structures – Works around Lindel and Disley tunnel were deferred to allow for emergency earthworks at Chorley.

Signalling – Volume of renewals achieved was less than forecast as scarce signalling resources were deployed on to the National TPWS programme.

Telecoms – Renewal work was deferred until Railtrack has clear view of overall strategy of CIS with the customer.

Stations – Slippage on the works at Victoria was due to planning issues and redesign. Actual spend on individual stations reflects detailed site scoping reviews rather than initial estimates contained with forecasts.

Depots – Costs associated with pollution at depots was managed and reported at network level.

Enhancements

Table 133 Route 33 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	1.4	1.5	0.1
Knowsley: proposed new freight terminal	2001/02	1.4	0.4	(1.0)
Total		**2.8**	**1.9**	**(0.9)**
Optional Enhancements				
Manchester Node Capacity Strategy	-	-		
Other schemes	-	-		
North Trans-Pennine: gauge enhancement	-	-		
Total		**-**	**0.0**	

Knowsley: proposed new freight terminal – Forecast was an estimate of new facility, the spend reflects only the costs incurred and reclaimed by Railtrack.

Route 34 – Lancashire

Renewals

Table 134 Route 34 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	2.1	2.3	0.2
Structures	0.9	1.6	0.7
Signalling	0.5	0.3	(0.2)
Telecoms	0.5	0.0	(0.5)
Stations	2.0	3.4	1.4
Other	0.0	0.0	0.0
Total expenditure	**6.0**	**7.6**	**1.6**

Track – There was localised additional work to remove poor 'eighths' sections of track.

Structures – There were additional drainage works to Sough tunnel, plus an increase in fencing works.

Signalling – The scope of works were reduced to allow resources to be directed to meeting the national TPWS programme.

Telecoms – Cable renewals at Hellifield were put back to 2001/02, due to development problems.

Stations – The necessity to do additional works at Blackburn and the detailing scope at other stations resulted in an increased spend against forecast.

Enhancements

Table 135 Route 34 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	0.0	0.0	0.0
Total		**0.0**	**0.0**	**0.0**
Optional Enhancements				
Other schemes	-	-	0.5	
Total		**-**	**0.5**	

Optional enhancements

Other schemes – Work at Blackburn station.

Route 35 – Cumbria

Renewals

Table 136 Route 35 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	1.5	0.7	(0.8)
Structures	0.6	1.6	1.0
Signalling	1.5	0.8	(0.7)
Plant & Machinery	0.0	0.0	0.0
Telecoms	0.0	0.0	0.0
Stations	5.0	2.7	(2.3)
Depots	0.1	0.3	0.2
Other	0.0	0.0	0.0
Total expenditure	**8.7**	**6.1**	**(2.6)**

Track – The volume of renewals achieved was less than forecast as scarce resources were deployed on to the National GCC recovery programme.

Structures – Additional sea defence works were undertaken at Parton.

Signalling – Sighting problems between Barrow and St Bees meant that work has had to be deferred.

Stations – Work programme rephrased to take account of changing priorities.

Depots – Work was brought forward.

Enhancements

Table 137 Route 35 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	0.0	0.0	0.0
Total		**0.0**	**0.0**	**0.0**
Optional Enhancements				
Other schemes	-	-		
Total		**-**	**0.0**	

Route 36 – Yorkshire

Renewals

Table 138 Route 36 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
London North Eastern Zone			
Track	6.1	5.6	(0.5)
Structures	3.6	2.7	(0.9)
Signalling	6.0	0.8	(5.2)
Electrification	0.0	0.0	0.0
Plant & Machinery	0.1	0.1	0.0
Telecoms	0.1	0.0	(0.1)
Stations	0.3	0.1	(0.2)
Depots	0.0	0.2	0.2
Total expenditure	**16.2**	**9.5**	**(6.7)**
North West Zone			
Track	1.1	0.0	(1.1)
Structures	3.4	3.2	(0.2)
Signalling	0.0	0.1	0.1
Plant & Machinery	0.0	0.0	0.0
Stations	0.0	0.3	0.3
Total expenditure	**4.5**	**3.6**	**(0.9)**

London North Eastern Zone

Track – There was deferral of some renewals, to allow resources to be employed on other routes.

Structures – There was deferral of work on structures and earthworks as higher priorities emerged elsewhere.

Signalling – Expenditure for the ECML Route Control Centre Phase 1 has been re-allocated to route 2 as the primary driver for the scheme. There was also a deferral of £0.6m on level crossings, due to higher priorities on other routes, partially offset by additional IMC2000 complementary renewals.

Stations – Less reactive work was required than forecast for Northern Spirit stations.

Depots – More reactive work was required than forecast for Northern Spirit depots.

North West Zone

Track – There was deferral of some renewals, to allow resources to be employed on other routes.

Stations – An additional scheme was completed at Kirkby Stephen.

Enhancements

Table 139 Route 36 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	2.4	0.0	(2.4)
Class 333 operation	2000/01	0.5	1.4	0.9
Total		**2.9**	**1.4**	**(1.5)**
Optional Enhancements				
Other schemes			0.8	
Settle – Carlisle Line renewal/refurbishment *			26.3	
Total			**27.1**	

* Note: Not specifically identified in the NMS forecasts

Other committed schemes – Resources for TPWS were redirected to routes with higher perceived risk, resulting in underspend of £2.3m. Station car park enhancements forecast at £0.1m did not progress, as customer did not come forward with proposals.

Class 333 operation – The forecast underestimated the costs of the works.

Optional enhancements

Other schemes – Schemes that progressed were Class 373s Leeds – Doncaster clearance preparatory works (£0.2m), Crossflats – Bingley OHLE alterations (£0.1m), Dewsbury station lifts (£0.2m), and feasibility for 5 new stations for WYPTE (£0.1m).

Settle & Carlisle – Route refurbishment and heavy maintenance were not originally included in the initial forecasts. The spend was subsequently allocated by Railtrack HQ.

Route 37 – North East England

Renewals

Table 140 Route 37 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	5.5	6.6	1.1
Structures	1.5	3.2	1.7
Signalling	0.9	1.4	0.5
Plant & Machinery	0.1	0.0	(0.1)
Telecoms	0.0	0.0	0.0
Stations	0.2	0.5	0.3
Depots	0.0	0.5	0.5
Other	0.0	0.2	0.2
Total expenditure	**8.2**	**12.4**	**4.2**

Track – There were additional ballast haulage requirements, and various changes to the scope of works.

Structures – There were various addition structures works, and in particular, additional earthworks.

Signalling – Various changes in the scope of the schemes occurred, and in particular, additional work on Signals Passed at Danger Reduction and Mitigation; and increased costs associated with the Bowesfield location case renewals.

Stations – There was additional work, including more reactive work, required than was forecast for Northern Spirit stations.

Depots – Work on Northern Spirit depots, and reactive work was required at Northern Spirit depots.

Other – There was additional route clearance work of £0.1m, and property reactive maintenance expenditure of £0.1m.

Enhancements

Table 141 Route 37 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Sunderland: Tyne & Wear Metro extension	2002/03	43.1	51.0	7.9
Other committed schemes	Various	4.4	5.2	0.8
Total		**47.5**	**56.2**	**8.7**
Optional Enhancements				
Other schemes			0.3	
Freight: gauge enhancements				
Total			**0.3**	

Sunderland: Tyne & Wear Metro extension – The cost increases were due to a landslip, and to costs associated with Christiani & Neilson going into administration.

Other committed schemes – There was re-phasing of TPWS resulting in an underspend of £0.4m, and £1.1m was spent on the Settle – Carlisle diversionary route.

Optional enhancements

Other schemes – The Redcar supermarket slew of track cost £0.1m, and there was £0.1m expenditure on anti-trespass works.

Route 38 – South West Scotland

Renewals

Table 142 Route 38 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
North West Zone			
Track	0.2	0.0	(0.2)
Structures	0.1	0.0	(0.1)
Signalling	0.0	0.0	0.0
Total expenditure	**0.3**	**0.0**	**(0.3)**
Scotland Zone			
Track	4.6	3.7	(0.9)
Structures	1.4	1.6	0.2
Signalling	0.8	0.2	(0.6)
Electrification	1.0	0.0	(1.0)
Plant & Machinery	0.1	0.1	0.0
Telecoms	0.2	0.0	(0.2)
Stations	1.1	1.5	0.4
Depots	0.0	0.0	0.0
Total expenditure	**9.2**	**7.1**	**(2.1)**

North West Zone

Track – Priorities, were changed, and resources were allocated to other routes.

Scotland Zone

Track – Priorities changed, and resources were allocated to other routes, in particular to undertake GCC repairs.

Structures – An earth slip at Glenwhilly resulted in additional work.

Signalling – The forecast incorrectly included TDM works at Ladyburn.

Electrification – The forecast incorrectly included works on this route that should have been allocated to electrified routes in Scotland.

Telecoms – There were various minor adjustments to the programme of works.

Stations – There was extra expenditure of the general maintenance of stations.

Enhancements

Table 143 Route 38 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	0.7	1.2	0.5
Total		**0.7**	**1.2**	**0.5**
Optional Enhancements				
Glasgow and South West: upgrade capacity and speed	-	-		
Aberdeen – Inverness: journey time improvements and capacity	-	-		
Other schemes	-	-		
Total		**-**	**0.0**	

Other committed schemes – The forecast did not reflect the full commitments made to implement TPWS, AWS and make capacity improvements.

Route 39 – Strathclyde

Renewals

Table 144 Route 39 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	5.6	8.6	3.0
Structures	2.9	3.9	1.0
Signalling	8.0	3.6	(4.4)
Electrification	0.4	0.0	(0.4)
Plant & Machinery	0.2	0.6	0.4
Telecoms	3.7	2.4	(1.3)
Stations	7.4	8.1	0.7
Depots	0.2	0.7	0.5
Total expenditure	**28.4**	**27.9**	**(0.5)**

Track – An additional £1.8m was spent repairing GCC, and there were additional renewals to the value of £1.2m.

Structures – There was £0.5m additional expenditure on cuttings and embankments on the Ayrshire routes, a £0.5m additional expenditure on remedial works to Paisley retaining wall.

Signalling – Renewals costing £4.0m to Glasgow Central Signalling did not take place following a re-appraisal of the scheme and the rescheduling of work reflecting the availability of the resource nationally. The renewal of Cathcart TDM was deferred by twelve months to allow a renewals synergy with other TDM work. This, together with other minor changes, gave a further net reduction of £4.4m.

Electrification – Due to reprioritisation of schemes £0.1m on bird deflector strips and £0.1m on base cap repairs did not progress. There was an underspend of £0.1m on motorised switching, and other minor works totalling £0.1m were deferred.

Plant & Machinery – An additional £0.2m was spent on Glasgow Central Power supplies following a fire, and £0.2m extra was spent to improve the reliability of 'point ends' to improve performance.

Telecoms – The NMS forecast should have recorded planned works totalling £2.3m.

Stations – An additional £0.7m was spent on repairs to stations, particularly canopies.

Depots – There was additional expenditure due to allocation of leasing costs for new carriage washers.

Enhancements

Table 145 Route 39 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	2.1	3.3	1.2
Paisley Gilmour Street: lifts	2000/01	0.1	0.1	0.0
Total		**2.2**	**3.4**	**1.2**
Optional Enhancements				
Glasgow Airport: rail link	-	-		
Other schemes	-	-		
Larkhall - Milngavie	-	-		
Barrhead – Kilmarnock: capacity	-	-		
Total		**-**	**0.0**	

Other committed schemes – Additional expenditure on a number of projects, including the proposals for Larkhall and project development for the PTE and local authorities.

Route 40 – Edinburgh and Fife

Renewals

Table 146 Route 40 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	3.5	2.0	(1.5)
Structures	1.0	1.3	0.3
Signalling	0.4	0.9	0.5
Electrification	0.0	0.0	0.0
Plant & Machinery	0.1	0.1	0.0
Telecoms	0.1	0.0	(0.1)
Stations	0.7	0.9	0.2
Depots	0.0	0.0	0.0
Total expenditure	**5.8**	**5.2**	**(0.6)**

Track – There was reprioritisation of work to other routes.

Structures – An additional £0.2m was spent on cuttings and embankments to avoid possible slips and TSRs, and an extra £0.1m on minor works.

Signalling – There was £0.7m of rollover expenditure from the previous years on renewal of signalling cables on the Bathgate route to improve performance. Work costing £0.2m at Halbeath Level Crossing was deferred due to lack of resources.

Telecoms – Various minor works did not progress.

Stations – An additional £0.2m was spent on maintenance of various stations.

Enhancements

Table 147 Route 40 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	4.1	2.4	(1.7)
Total		**4.1**	**2.4**	**(1.7)**
Optional Enhancements				
Other schemes	-	-		
Total		-	**0.0**	

Other committed schemes – There was £1.6m less than planned spent on TPWS due to lack of signalling design resource and the delays nationally in awarding contracts.

Route 41 – Highlands

Renewals

Table 148 Route 41 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	1.4	2.1	0.7
Structures	1.5	2.0	0.5
Signalling	0.5	0.3	(0.2)
Plant & Machinery	0.1	0.1	0.0
Telecoms	0.5	0.1	(0.4)
Stations	2.7	2.9	0.2
Depots	0.1	0.6	0.5
Total expenditure	**6.8**	**8.1**	**1.3**

Track – Additional renewals were identified to maintain quality and reverse the effects of freight traffic.

Structures – An additional £0.3m was spent on cuttings and embankments to avoid possible slips and TSRs. An extra £0.3m was spent on minor works and coastal defences.

Signalling – Resource shortages resulted in the deferral by twelve months of the Banavie/Craigendoran Block Interface.

Telecoms – The West Highland Line Radio Bearer Network work forecast at £0.2m was deferred to allow the renewals policy to be determined. Resource shortages delayed by twelve months the £0.1m telephone improvements to User Worked Crossing. CIS renewals of £0.1m were lost due to reprioritisation of schemes.

Stations – An additional £0.2m was spent on general repairs to stations to meet obligations to customer.

Depots – The additional expenditure was due to the allocation of leasing costs for new carriage washers.

Enhancements

Table 149 Route 41 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	1.0	0.4	(0.6)
Total		**1.0**	**0.4**	**(0.6)**
Optional Enhancements				
Other schemes	-	-		
Total		**-**	**0.0**	

Other committed schemes – The £0.3m upgrade to Rovie Level Crossing was completed at the end of 1999/00, and TPWS work forecast at £0.3m was deferred due to lack of signalling design resource and the delays in awarding national contracts.

Route 42 – Southern England and South Wales Freight

Renewals

Table 150 Route 42 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Great Western Zone			
Track	1.6	1.4	(0.2)
Structures	0.3	1.6	1.3
Signalling	0.1	0.1	0.0
Plant & Machinery	0.0	0.0	0.0
Telecoms	0.0	0.0	0.0
Total expenditure	**2.0**	**3.1**	**1.1**
Southern Zone			
Track	0.0	0.0	0.0
Structures	0.0	0.0	0.0
Signalling	0.0	0.0	0.0
Total expenditure	**0.0**	**0.0**	**0.0**

Great Western Zone

Track – Track renewal works at Lonlas Tunnel and Llangyfelach were deferred due resources being redirected to the GCC programme.

Structures – Unplanned remedial works were required to Charlton Tunnel.

Enhancements

Table 151 Route 42 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	0.3	0.3	0.0
Total		**0.3**	**0.3**	**0.0**
Optional Enhancements				
Other schemes	-	-	2.2	
Total		-	**2.2**	

Optional enhancements

Other schemes – There was refurbishment and reinstatement of the Portishead Branch line.

Route 43 – Midlands Zone Freight

Renewals

Table 152 Route 43 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	2.6	1.7	(0.9)
Structures	2.3	2.2	(0.1)
Signalling	0.2	0.0	(0.2)
Other	0.4	0.0	(0.4)
Total expenditure	**5.5**	**3.9**	**(1.6)**

Track – Resources were redirected to GCC repairs elsewhere.

Signalling – The Corby Multiple Train working scheme suffered delays while details were finalised with the customer. The scheme will now enter implementation during 2001/02.

Other – The forecast assumed that the cost of moving the Zone Headquarters to the 'Mail Box' would be allocated across the Zone's routes. Actual costs have been allocated to Route 1.

Enhancements

Table 153 Route 43 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Caldon Low: freight improvements	2001	0.3	0.2	(0.1)
Bescot Yard Sidings *		-	0.4	0.4
Total		**0.3**	**0.6**	**0.3**
Optional Enhancements				
Stourbridge – Walsall: new line	-	-		
Other schemes	-	-		
Castle Donnington: freight schemes	-	-		
Total		**-**	**0.0**	

* Note: Not specifically identified in the NMS forecasts

Caldon Low: freight improvements – Development work was undertaken until the customer decided that the scheme was no longer required.

Bescot Yard Sidings – Development of the yard was not in the forecast, and progresses in 2001/02.

Route 44 – Northern England Freight

Renewals

Table 154 Route 44 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
London North Eastern Zone			
Track	3.8	1.5	(2.3)
Structures	1.5	0.9	(0.6)
Signalling	0.1	0.2	0.1
Total expenditure	**5.4**	**2.6**	**(2.8)**
North West Zone			
Track	0.9	5.0	4.1
Structures	0.5	1.4	0.9
Signalling	0.3	0.1	(0.2)
Plant & Machinery	0.0	0.0	0.0
Stations	0.0	0.0	0.0
Total expenditure	**1.7**	**6.5**	**4.8**

London North Eastern Zone

Track – The renewals programme was re-scoped to allow resources to be directed to the rail recovery programme elsewhere.

Structures – There was a reduction in the scope of level crossings works, structures assessments, and fencing renovation.

Signalling – There was additional expenditure on switch heaters.

North West Zone

Track – A larger quantity of renewals on the Fiddlers Ferry-Ditton route for power station traffic was identified than had originally been forecast.

Structures – There were additional works to Dove Holes tunnel drainage and Chapel Milton viaduct.

Signalling – The scope of works were reduced to allow resources to be directed to meeting the national TPWS programme.

Enhancements

Table 155 Route 44 Enhancement expenditure (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	-	0.0	0.0	0.0
Total		**0.0**	**0.0**	**0.0**
Optional Enhancements				
Other schemes	-	-	0.1	0.1
Immingham: terminal improvements	-	-	0.1	0.1
Total		**-**	**0.2**	**0.2**

Optional Enhancements

Other schemes – Dove Holes Quarry sidings connections were remodelled.

Immingham: terminal improvements – Work continues with Associated British Ports to develop major enhancement proposals.

Route 45 – Scotland Zone Freight

Renewals

Table 156 Route 45 Renewals expenditure (£m)

	NMS Forecast	Actual	Variance
Track	1.4	0.8	(0.6)
Structures	0.6	1.0	0.4
Signalling	0.1	0.1	0.0
Plant & Machinery	0.0	0.0	0.0
Stations	0.0	0.0	0.0
Depots	0.0	0.0	0.0
Total expenditure	**2.1**	**1.9**	**(0.2)**

Track – Re-prioritisation of work to provide resources to other routes.

Structures – There was an additional £0.3m spent on cuttings and embankments, to avoid possible slips and TSRs. There was extra expenditure of £0.1m on minor works.

Enhancements

Table 157 Route 45 Enhancement expenditure (£m) (£m)

	Completion	NMS Forecast	Actual	Variance
Committed Enhancements				
Other committed schemes	Various	1.4	0.8	(0.6)
Total		**1.4**	**0.8**	**(0.6)**
Optional Enhancements				
Other schemes	-	-		
Knockshinnoch – Killoch: capacity upgrade	-	-		
Edinburgh CrossRail	-	-		
Total		**-**	**0.0**	

Other committed schemes – Agreements with customers for various schemes were not concluded.

Section 7 – Customer Reasonable Requirements

Background

Railtrack entered into an agreement with the Regulator on 14 July 1998 to establish the reasonable requirements of train operators and key funders, principally passenger transport executives (PTEs). As part of this process Railtrack was required to report in mid-January 1999 on the extent to which it had carried out the steps detailed in paragraphs 5, 6 and 7 of the schedule to this agreement. A full report was provided on 22 January 1999.

Railtrack's 1999 and 2000 Network Management Statements (NMS) included summaries of the types of requirements received and discussed with customers and PTEs, and summaries of progress for all Customer Reasonable Requirements (CRRs).

Railtrack then agreed with the Regulator that summary reports on progress for all CRRs would be provided to him on a quarterly basis. Railtrack also agreed to provide a summary report of progress of CRRs categorised as enhancement feasibility.

Following further discussions Railtrack will now prepare an annual progress report to be included in the Annual Return. Due to the overlap with the previous quarterly report, this first Annual Return summarises progress between 1 January 2000 and 31 March 2001.

Process

CRRs are fully integrated into Railtrack's account planning processes. They are reviewed regularly, at a mutually agreed frequency, at Railtrack account management meetings with customers and PTEs.

Customers and PTEs can agree with Railtrack at any time to add, withdraw or amend CRRs and they are encouraged to use the CRR process to record and track the delivery of their future aspirations as they become reasonable requirements for Railtrack.

As part of the process for ensuring the delivery of CRRs, all those CRRs which are relevant are linked into the route strategy development process which feeds into Railtrack's business plan and the NMS.

Customer aspirations and CRRs are recorded in Railtrack's business planning database. This ensures that CRRs are consistently recorded, progressed, tracked and delivered.

Key Overall Results

There are 4 tables in this section that give data on the following:

Summary of CRRs

List of disputed CRRs: passenger train operating companies

List of disputed CRRs: freight train operating companies

Enhancement feasibility CRRs

Railtrack had 994 live CRRs as at 31 March 2001 compared with a total number of submitted CRRs of 1800 at the start of the report period. During the report period 1194 CRRs were withdrawn or completed while 388 new CRRs were submitted.

The substantial reduction in total live numbers is due to the completion of a number of CRRs as well as the removal of ill-defined CRRs following liaison between customers and Railtrack.

The total number of disputed CRRs for the report period is 20.

Table 158 Summary of Customer Reasonable Requirements (CRRs)

Customer or Funder	Totals				Breakdown of Live CRRs by category			
	Number Submitted (at period start)	Number withdrawn/ completed during the period	Number Submitted during the period	Number of live CRRs (at period end)	Account Management	Enhancement		Agreement not reached
						Feasibility	Implementation	
Anglia	48	35	13	26	15	6	5	0
ATOC	1	0	0	1	0	0	1	0
C2C	49	27	7	29	18	5	6	0
CRC	87	45	3	45	22	22	1	0
Central Trains	70	76	32	26	15	9	2	0
Centro	26	20	7	13	7	5	1	0
Chiltern Railway	42	22	15	35	13	21	1	0
Connex	81	11	2	72	26	30	16	0
DRS	20	19	10	11	10	1	0	0
Eurostar	18	12	3	9	8	0	1	0
EWS Freight	182	188	127	121	108	0	0	13
EWS Passenger	5	4	1	2	2	0	0	0
First Great Eastern	53	35	0	18	14	4	0	0
First Great Western	52	36	4	20	8	6	6	0
First North Western	15	2	0	13	12	0	1	0
Freightliner	19	8	6	17	2	14	1	0
Gatwick Express	13	8	7	12	9	3	0	0
GMPTE	29	12	3	20	12	8	0	0
GNER	54	40	2	16	1	5	10	0
Heathrow Express	20	15	8	13	9	1	2	1
Hull Trains	0	0	1	1	0	1	0	0
Island Line	5	2	0	3	3	0	0	0
London Underground – Bakerloo Line	13	7	4	10	10	0	0	0
London Underground - District Line	10	6	5	9	9	0	0	0
Midland Mainline	65	24	14	55	14	32	4	5
Merseyrail Electrics	21	19	1	3	2	0	1	0
Merseytravel	48	42	0	6	2	0	4	0
NEXUS	6	3	1	4	0	3	1	0
Northern Spirit	75	74	9	10	2	5	3	0
ScotRail	29	25	4	8	4	0	4	0
Silverlink	106	41	8	73	23	35	15	0
South West Trains	33	9	0	24	12	4	7	1
SPTE	33	54	37	16	3	3	10	0
SYPTE	11	8	1	4	0	4	0	0
Thames Trains	106	39	0	67	50	8	9	0
Thameslink	14	7	0	7	5	0	2	0
Virgin Cross Country	29	17	5	17	9	5	3	0
Virgin West Coast	109	60	33	82	9	38	35	0
WAGN	92	46	0	46	24	13	9	0
Wales & West	93	86	15	22	16	5	1	0
West Coast Railway	3	1	0	2	0	2	0	0
WYPTE	15	9	0	6	0	2	4	0
TOTAL	**1800**	**1194**	**388**	**994**	**508**	**300**	**166**	**20**
Percentage of total				100%	51%	30%	17%	2%

Table 159 Disputed CRRs: passenger train operating companies

Customer	Requirement	Summary as at 31/01/2001	Summary as at 01/04/2001
Midland Mainline	5 CRRs: Platform lengths/stepping distances for the following 5 stations: Sheffield, Wellingborough, Market Harborough, Loughborough, Kettering	The list of stations has been refined in discussions between Railtrack and the SRA and includes five Midland Mainline stations. The scope of the second tranche is still under discussion with the SRA.	Railtrack now has a development agreement with the SRA, with detailed design and development due to commence this year. We anticipate that physical work will start in 2002/03.
South West Trains	1 CRR: Prioritise routes and upgrade existing platforms to the Group Standard height dimension of 915mm	This includes a number of stations leased by South West Trains.	Railtrack now has a development agreement with the SRA, with detailed design and development due to commence this year. We anticipate that physical work will start in 2002/03.
Heathrow Express	1 CRR: Minimise delays as a result of disruption to the network.	-	Parties in discussion to agree on the basis for the recovery plan.

Table 160 Disputed CRRs: English, Welsh & Scottish Railways

Proposal	Background	Position as at 31/01/2001	Position as at 01/04/2001
Track capacity - Channel Tunnel routes	EWS requires Railtrack to provide the timetable and detailed Channel Tunnel Rail Link (CTRL) construction plans as evidence to demonstrate that we have adequate plans to meet EWS's capacity requirements and to demonstrate in detail the impact of CTRL construction activity during the construction of section 2 of the CTRL.	The CRR deemed to have been completed when timetable shows that 44 services are able to be accommodated from the tunnel.	Computer simulation of the timetable continues, with a new draft version 5 due to be released soon. The working timetable will incorporate 50 paths, but due to resource constraints there are indicators this figure may drop. EWS have been advised of this issue and will respond accordingly.
Track Capacity - Southampton to Basingstoke	EWS expects Railtrack to have plans to meet their requirements.	EWS awaiting outcomes of Dibden Bay public enquiry and Virgin Cross Country hearing. Also, issues over number of paths deliverable within the latest timetable specification.	The outcome of the Dibden Bay inquiry is still unknown at present. Railtrack are assessing the latest timetable proposals, taking account of current track access rights.
Track capacity - Acton Mainline to Airport Junction	EWS requires Railtrack to provide timetable evidence to demonstrate that they have adequate plans to meet EWS's requirements. The Heathrow to St Pancras service is being developed in 3 phases. There is an aspiration to run a new Heathrow Express Shuttle service from the Summer 2002 timetable, operating from Heathrow Airport to Ealing Broadway. The aspiration for phase 2 is to extend services beyond Ealing Broadway to Cricklewood or West Hampstead, and the final phase to St Pancras is expected in 2007. The new services, which are contracted to run for 4 years, do not inhibit provision for all known EWS growth plans.	A pre-feasibility study into the Great Western Mainline upgrade is progressing. Included in this study will be an assessment of 6-tracking Acton to Airport Junction.	No change.

Table 160 Disputed CRRs: English, Welsh & Scottish Railways

Proposal	Background	Position as at 31/01/2001	Position as at 01/04/2001
Track Capacity - Bowesfield to Thornaby from year 5	EWS considers that Railtrack does not have firm plans to meet their capacity requirements.	Railtrack and EWS met to discuss this requirement. EWS agreed to provide Railtrack with details of their revised service requirements. Railtrack agreed to provide plans and capacity details included in the route strategy.	Railtrack still awaiting a breakdown of EWS long-term capacity requirements. Railtrack have agreed to provide strategy plans once this information has been received.
Gauge enhancement - CTRL to Scotland via WCML	EWS require Railtrack to provide a route capable of accommodating W18w gauge between the Channel Tunnel and Scotland.	Railtrack has identified majority of costs within each Zone in association with SRA. Any outstanding costs currently being worked up. SRA is collating previous Piggyback studies to establish an industry position, the outputs of which could affect the application on the core routes across the network.	Awaiting SRA strategy on W18w proposals. Initial indications are that it will not be pursued, but the decision rests with the SRA.
Track Access Charges	Railtrack to ensure that track access charges conform to the notional efficient competitor concept.	Negotiations with EWS continue, as does ORR review of Railtrack access charges for freight services.	An interim track access agreement has been put in place, with both parties now discussing a long-term new agreement, including Access Charges.
WCML upgrade	WCML capability to provide for existing trains plus 42 paths.	This CRR is continuing to be taken forward as part of the West Coast Route Modernisation project. South of Crewe the position remains unchanged, as the parties are still considering their positions. A value management workshop has taken place regarding capacity north of Crewe and all industry parties are working together to achieve the optimum position.	South of Crewe, a working timetable is available that demonstrated the 42 paths. EWS have been consulted and discussions are still continuing.
WCML upgrade	WCML capability to meet all EWS's long term requirements.	This CRR is continuing to be taken forward as part of the West Coast Route Modernisation.	Railtrack is evaluating the additional cost of infrastructure enhancements and other ideas from EWS regarding the Major Project Notice.

Table 160 Disputed CRRs: English, Welsh & Scottish Railways

Proposal	Background	Position as at 31/01/2001	Position as at 01/04/2001
Power supply - Mossend to Doncaster	EWS requires Railtrack to provide adequate power supplies to enable Class 92s to operate. Railtrack will ensure EWS is aware of those paths which can be used without upgrading the power supply. If the power supply needs upgrading to meet EWS's requirements, the provisions of the track access contract provide for Railtrack to recover incremental costs from EWS.	Railtrack has supplied information to EWS regarding the pre-feasibility cost of upgrading the power supply from Doncaster to Berwick, power supply station details between Carstairs and Portobello and PSR/TSR information. EWS was asked to provide Railtrack with a specification of electrically hauled services, which is still awaited.	A full study addressing the long term power supply issue has been undertaken by the East Coast Route team, involving computer simulation studies. Outputs are still awaited.
WCML upgrade - power supply	Railtrack to ensure that adequate power supply is provided within its WCML upgrade plans to meet EWS's forecast requirement for electrically hauled services.	Railtrack have produced pre-feasibility costs for increasing the power output to core routes and are awaiting reply from EWS regarding electric traction requirements	High level discussions within the project team continue regarding the requirements of the various systems – unchanged position.
WCRM - control systems	The requirement set out in section 8 of the original EWS requirement applies to any mandatory train control or communication system such as NRN, DART, TPWS and ATP.	Both parties are continuing to discuss this issue. Railtrack is considering its position following the final conclusions of the Periodic Review.	A project engineering team has been set up to co-ordinate the advancement of control systems with customers. A train control systems project manager has joined the WCRM team.
Property - compulsory purchase orders	Railtrack will use all reasonable endeavours to resist the enforced disposal of strategic freight sites for non rail freight use. EWS have also asked that if the planning terms for a site are unrealistic for freight use, (subject to commercial terms being agreed), Railtrack should identify a suitable alternative site as a replacement.	Railtrack and EWS are continuing to discuss the additional disputed wording.	No change.
Retain Southern Zone infrastructure	This relates specifically to the retention of Salisbury East yard.	Both parties believe an acceptable solution has been found. An outline planning application encompassing development, a car park and a freight terminal will be submitted in March 2001 with EWS involvement.	Railtrack have almost reached a satisfactory conclusion with EWS and the Council.

Table 161 Enhancement Feasibility CRRs – 1st April 2001		
Timeband	Number of CRRs to be completed/withdrawn in period	% (of total number of Enhancement Feasibility CRRs)
By 31/3/02	115	38%
Beyond 31/3/02	185	62%
Total number of Enhancement Feasibility CRRs	**300**	**100%**

Glossary of Terms

AC	Alternating current
AHB	Level crossing protected by automatic half-barrier
AMP	Asset Maintenance Plan
Annual Return	The report which Railtrack PLC is required to submit to the Regulator
ATOC	Association of Train Operating Companies
ATP	Advanced Train Protection
AWS	Automatic Warning System
BAA	Owner and operator of a number of airports in Great Britain and elsewhere
bogie	Frame containing suspension axles and wheels on which a railway vehicle is mounted
c2c	Commuter train operating company running services between Shoeburyness and London Fenchurch Street
CCTV	Closed-circuit television
CIS	Customer information system
Control Period	The period (normally five years) for which the Rail Regulator fixes our access income from franchised passenger train operators
Crossing	The component of a turnout that enables a train wheel to complete the transfer from one line to another. It is this unit which enables the wheel to cross the original line being traversed
CRR	Customer Reasonable Requirement
CTRL	Channel Tunnel Rail Link
Customers	Those who use Railtrack infrastructure and equipment
DARS	Dartford Area Resignalling Scheme
DART	Digital Advanced Radio for Trains
DC	Direct current
DRS	Direct Rail Services
DTLR	Department of Transport, Local Government and the Regions
ECML	East Coast Main Line
EWS	English Welsh & Scottish Railway
FGW	First Great Western
Funders	Authorities and agencies which provide funding to secure rail services
GCC	Gauge Corner Cracking

GE	Great Eastern
GMPTE	Greater Manchester Passenger Transport Executive
GNER	Great North Eastern Railway
IECC	Integrated Electronic Control Centre
IMC2	Second generation maintenance contract
IMC2000	Third generation maintenance contract
Interlockings	Mechanical, electrical or electronic. These execute the safety logic to reduce the risk of error when controlling points and signals.
IOS	Incremental Output Statement
IT	Information Technology
kV	Kilovolt (= 1, 000 volts)
LC	Level crossing
Level 2 Exceedence	A measure of track geometry
LMD	Light Maintenance Depot
LNE Zone	London North Eastern Zone
Loop	A facility to allow a train to stop and be overtaken by a faster train
LUL	London Underground Limited
Masterplan	The plans for the development of each of the major stations – those stations that are operated by Railtrack
NEXUS	Tyne and Wear Passenger Transport Executive
NMS	Network Management Statement
NRN	National Radio Network
OHL	Overhead line
OLE	Overhead line equipment
ORR	Office of the Rail Regulator
parkway station	A railway station with a large car park and easy road access
Periodic Review	The process by which the Regulator establishes Railtrack's revenue requirements for a quinquennium
PfPI	Process for Performance Improvement
Piggyback	Conveying lorry trailers by train
Possession	The closure of a line to allow engineering works
PSB	Power signal box
PTE	Passenger Transport Executive

PTI 2000	Public Transport Information 2000
PUG	Passenger Upgrade
PUG 1	Passenger Upgrade No 1 – agreement with the Franchising Director and WCML
PUG 2	Passenger Upgrade No 2 – agreement with Virgin Trains for the capacity and capability of WCML and revenue sharing arrangements
RA	Route availability – RA1–6 up to 20.3 tonnes; RA7–9 up to 23.4.1t; RA10 up to 25.4t
RAB	Regulatory Asset Base
Rules of the Route	Agreement between Railtrack and train operators as to when lines can be temporarily closed for maintenance and renewal work
Running Lines	Lines used for running services, not sidings
S&C	Switches & Crossings. Component units that make up points or a turnout
SCMI	Structures Condition Monitoring Index
SICA	Signalling Infrastructure Condition Assessment
SPT	Signal Post Telephone
SPAD	Signal Passed At Danger
SPT	Strathclyde Passenger Transport
SRA	Strategic Rail Authority
SRP	Station Regeneration Programme
SWT	South West Trains
SYPTE	South Yorkshire Passenger Transport Executive
TfL	Transport for London
TPWS	Train Protection Warning System
TPWS+	TPWS functionality at higher speed
Track circuit	An electrical device using the rails in an electrical circuit, which detects the presence of trains on a defined section of line
TSP	Track Sectioning Point
TSR	Temporary speed restriction
Turnback	A facility allowing trains to reverse their direction
UK	United Kingdom
UPS	Uninterruptible Power Supply

W10w	This gauge was previously known as 9'6" refrigerated container gauge. It is now called W12.
W11	The gauge capable of handling 4m-high lorry trailers on rail wagons. This gauge is now known as W18
W12	Freight gauge formerly known as W10W
W18	The gauge formerly known as W11
W6A	Loading gauge for standard freight vehicles
W7	Previously called WG8 8' container gauge
W8	Previously 8'6" container gauge
W9	Previously SBlc gauge
W10	Previously 9'6" container gauge
WA	West Anglia
WAGN	West Anglia & Great Northern Railway
WCML	West Coast Main Line
WCRM	West Coast Route Modernisation
Wheelchex	A system to measure the forces generated by a train running on track
WYPTE	West Yorkshire Passenger Transport Executive

Index of Figures & Tables

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