

Network Rail and Office
of Rail Regulation

**Independent Reporter
(Part A)**

Q1 2010-11 Data
Assurance Report -
Performance

FINAL

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of Rail Regulation

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(Part A)**

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Assurance Report -
Performance

July 2010

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Executive Summary

The Reporter Team carried out the annual review of the data management arrangements to verify that performance KPIs reported by Network Rail are produced reliably and accurately. Sections 2 – 5 of this report comprise a general review of the performance KPIs covered by the CP4 Monitoring Handbook. As it was only eight months from the Reporter Team's previous visit, this concentrates on follow-up to previous recommendations, a review of planned system changes, and other changes to the processes that have occurred since last October. At the previous audit, the performance KPIs received high confidence ratings, so data checks were conducted to verify that the calculation processes are still consistent.

Section 6 of the report focuses on the TRUST Delay Attribution (TDA) arrangements, which were not covered during the 2009/10 visit. This audit included detailed meetings with the National performance team and a series of three Route visits, each of two days. These visits were used to examine the detailed local management of TDA, including sampling of TRUST incident records to audit them against the various industry and Network Rail standards. A TOC representative attended each of the sessions to discuss any issues the Operators may have with the process, and a FOC representative attended the LNW audit. This provided a more rounded view of the arrangements. The TDA review was the main focus of this audit.

The findings for the individual KPIs and TDA are summarised in the following paragraphs.

Performance KPIs

5a) PPM

Confidence Rating = A1

The impact of the winter did cause problems on some Routes with data collection but overall these problems had a significantly less than 1% effect. This remains the same as last year.

5b) CaSL

Confidence Rating = A2

Last year the rating was B2. The change since last year reflects the fact that definitions and processes are now fully documented, enhancing the reliability of the KPI. The impact of the TRUST upgrade, SRP77 and the associated process improvements are not yet fully 'bedded in', but, once the SRP77 upgrade is fully embedded, the accuracy of the KPI should be enhanced sufficiently for this measure to achieve a rating of A1.

5c) Network Rail Delay Minutes to TOCs

Confidence Rating = A1

This is the same as last year.

5d) Network Rail Delay Minutes to FOCs per 100 Train km

Confidence Rating = A3

This reflects the rating given last year and the fact that the accuracy issue relating to train km/mileage data has still not been fully addressed.

6a & 6b) Asset Management (Track/Non-Track Delay Minutes)

Confidence Rating = A1

This dataset is a direct derivative of Network Rail delay minutes.

TRUST Delay Attribution

Overall, the standards of TRUST Delay Attribution (TDA), based on a substantial sample, were found to be good. These observations are based on visits to Western, Kent and LNW Routes.

The overall levels of accuracy of attribution to cause and owner, as illustrated by the sample checks made, are very good. The Reporter Team did not find any Network Rail incidents which were non-compliant with the attribution rules in the DAG¹ or any other guidance.

Any inconsistencies of attribution found were for TOC incidents which appeared to reflect differing practices within TOCs. This tended to manifest itself around delays in running, station delays and the use of depot delay codes (701a). This does not affect Network Rail reporting, but does demonstrate a wider issue that the Delay Attribution Board may wish to consider.

The checks did reveal inconsistencies in the application of EESIC², Network Rail's internal standard, showing that Network Rail still has some way to go in ensuring consistency in the way in which TRUST events are completed: however, this does not affect attribution.

There is a wide and fairly comprehensive suite of TDA procedures, starting with the DAG. However, Network Rail needs to give some thought as to how its suite of supporting instructions sits together. In particular, the status of IDAs needs clarifying. During the audit, no one could definitively state which ones were still live, and which had been superseded by changes to other documents.

The resource levels applied to TDA are not consistent on a route-by-route basis. This means that, during major disruption, some routes have a deeper resource pool on which to call. The abolition of DTL posts on Kent is an obvious example of this.

There is a commendable commitment to training and briefing TDA staff, although at present the actual level of formal briefing achieved varies between Routes, with some shortfalls to plan noted, which were due to vacancies in key posts.

The levels of internal checks required are high, and many of these checks are new. However, evidence on two of the routes showed gaps in the records of all the checks taking place. Again, this was primarily a result of vacancies in key posts.

The management of delay attribution during the worst days of the preceding winter was far from consistent. In particular, the difficulties experienced in having a fully functional "applicable timetable" in the systems caused major problems in recording delay and reliability events (some of the implications of which are discussed in Section 5 of this report). Varying practices in the handling of timetable changes for forecast severe snow days delivered very different results.

The future of TDA is currently uncertain, due to the cancellation of the IDAS³ project. This was a system upgrade which sought to automate much of the process and therefore reduce the number of staff required. The savings from this system formed part of the efficiency forecasts for CP4. In seeking a future solution, it is important that Network Rail protects the much-improved levels of integrity seen during the route visits.

¹ Delay Attribution Guide

² Essential Elements for Standard TRUST Incident Creation

³ Improved Delay Attribution System

1 Introduction

Arup is the appointed Part A Independent Reporter, with responsibility for providing assurance of the quality, accuracy and reliability of the data used by Network Rail to report performance to ORR, the DfT and the wider industry.

This report forms part of a rolling programme of audits carried out annually across a range of Key Performance Indicators (KPIs) used to measure Network Rail's delivery against its key obligations. These checks focus on the reliability, quality, consistency, completeness and accuracy of the reported data, not on any trends highlighted by the data.

This 2010/11 Quarter 1 (Q1) report covers train performance data that was last reviewed in 2009/10 Q2 (there was no Q1 report last year due to an overlap with the outgoing Reporter Team).

The KPIs covered are:

- 5(a) Public Performance Measure (PPM)
- 5(b) Cancellations and Significant Lateness (CaSL)
- 5(c) Network Rail delay minutes to passenger train operating companies (TOCs)
- 5(d) Network Rail delay minutes for freight operating companies (FOCs) per 100 train km
- 6(a) Asset Management (track infrastructure delay minutes)
- 6(b) Asset Management (non-track infrastructure delay minutes)

The Q2 report for 2009/10 focused primarily on CaSL, which was then a new measure, but did cover all of the KPIs. Because it is only eight months since the previous visit by the Reporter Team, this audit has not simply repeated the checks undertaken last time, as this would add little value. Instead, the focus of this year's report was guided by the findings from that audit and is on the following areas:

- Progress on recommendations from Q1 2009/10
- Confirmation that processes/procedures for compilation of KPI data remain broadly similar
- Progress on the implementation of system upgrades:
 - Business Objects
 - SRP77
- The effectiveness of TRUST delay attribution

The last of these areas has a significant impact on the reporting of delay data, and underpins the collation of performance data. The 2009/10 review did not audit any part of the TRUST process, so the prime focus of this audit was centred on this vital area. Sections 2 - 5 of this report deal with the first three areas, and are similar in focus to last year's report. Section 6 deals exclusively with the review of TRUST Delay Attribution (TDA).

2 KPI Review

To undertake the first part of the Q1 review the Reporter Team met with the Network Rail National Performance team on 18th May in Milton Keynes. The following managers were seen during the day:

- National Performance Analysis Manager
- Performance Process and Controls Manager
- Senior Performance and Forecast Analyst
- Performance Analyst
- Performance Analyst

The review consisted of a series of detailed interviews during the day covering the required areas, with supporting documentation provided for review. Additionally, data were provided to allow the Reporter Team to carry out assessments of recent periods to confirm the achievement of the required levels of accuracy. The methodology used is described in section 5.3.

The detailed update on progress on the TRUST upgrade, SRP77, was given on 20th May in Milton Keynes at a separate meeting. The Network Rail attendees were:

- National Data Quality Specialist
- Performance Support Analyst

The Reporter Team for these sessions was:

- Phil Dargue
- Keith Winder
- Paul Newton
- Matt Ablett
- William Wingate (initial overview meeting with Network Rail only)

3 Progress on 2009/10 Recommendations

At the last audit the Reporter Team made four recommendations for Network Rail which were subsequently accepted. An update on progress made was obtained from Network Rail and is summarised in Table 3.1. The fifth recommendation made (2010.5.5) at the last audit was for the Reporter Team to check on progress on the rollout of Business Objects and SRP77 at this audit. The results of those checks are set out in sections 4.1 and 4.2.

Table 3.1: Progress with 2009/10 Recommendations

No.	Recommendation to NR	NR Data Champion	Due Date	Progress Recorded
2010.5.1	<p>Formalise key National processes, procedures, controls and definitions to mitigate the effects of personnel changes and ensure the retention of specialist knowledge for business continuity purposes; incorporate these into Performance Manual</p> <ul style="list-style-type: none"> Formalisation of PPM Definition Documentation of Data Modifications and Verification Checks Formalisation and Control of Definitions and Requirements for CaSL Formalisation and Documentation of Procedures for Accommodating Train Service Changes 	Paul Kelly	March 2010	Network Rail have issued a revised edition of the Performance Manual (May 2010). This is a significant upgrade and includes the definitions of PPM and CaSL, and the other key areas raised in the recommendation. The Reporter Team was issued with a revised copy of the Manual as evidence of the changes made. At the time of the audit, the revised manual was just being brought into general use.
2010.5.2	<p>Improve Document/Data Version Control</p> <ul style="list-style-type: none"> Performance Spreadsheets Version Control 	Stephen Draper	March 2010	Network Rail have streamlined the spreadsheets used in the calculation of PPM and CaSL, as outlined in more detail in section 5.3.2. This process was still in development at the time of the Reporter Team's visit, but a review of the process as it stands indicates that it will address the concerns raised during the 2009/10 audit. However, the work has not been completed within the target

No.	Recommendation to NR	NR Data Champion	Due Date	Progress Recorded
				timescale.
2010.5.3	Establish guidelines for and use of Spreadsheet Best Practice <ul style="list-style-type: none"> • Avoidance of 'Hard Coding' • Automation of Processes • Highlighting of Unavoidable Exceptions to these 	Stephen Draper	January 2010	Network Rail have produced a document outlining guidance for best practice in developing spreadsheets, and this is being adopted in developing the spreadsheets in the streamlined process noted above. This completes this specific recommendation.
2010.5.4	Devise and agree a plan to resolve outstanding freight data issues	Stephen Draper	March 2010	As yet, no plan has been produced to examine the Freight data issues highlighted, and the implementation of the recommendation is therefore incomplete. It is understood that the new train planning system will be capable of generating running times for all freight services, but this, and the normalisation issues, need to be captured in a plan, as agreed.

(Note: following discussion with Network Rail and ORR of the first draft of this report, it has been agreed to split recommendation 2010.5.4 into two separate recommendations, as shown in sections 5 and 7.)

4 Implementation of System Upgrades

During the 2009/10 Q2 audit, Network Rail described plans for changes to two systems which would affect the future collation of KPI data. It was agreed that this year's review would check on the progress made.

The two changes are:

- (a) The full roll-out of Business Objects to extract all Performance KPI data
- (b) The implementation of an upgrade to TRUST, called SRP77

The following sections discuss the progress to date and the impact on the performance KPIs.

4.1 Business Objects

Since Period 1 2009/10, all performance data which feeds into reporting of regulatory measures has been extracted from PSS using Business Objects. The only measure which is still extracted from Discoverer is peak PPM, which is a not a regulated measure (reflected in the lower urgency Network Rail have placed on transferring this process across to Business Objects).

To confirm that the transfer from Discoverer to Business Objects did not cause any mismatch in data extraction, Network Rail ran the extraction process from both systems in parallel for one period, and verified that the results produced were the same. The Reporter Team checked the data supplied by Network Rail from these checks. Data exports from both Business Objects and Discoverer were provided for 2011/P01 by Network Rail to confirm that there were no changes as a result of moving to the new system. Sample data were supplied for First ScotRail, Virgin West Coast, Chiltern and London Midland (each sector). Generally, the same data were produced by both systems, although a couple of very minor discrepancies were observed, The Reporters were unable to ascertain from Network Rail the reasons for these minor differences, although for London Midland it appears there may be a small change in definition of sector for a handful of trains (affecting eight out of approximately 36,000 train records) . These are too small to have any impact on any published figures.

The main effect of the transfer to Business Objects was the need to restructure the spreadsheets used for reporting PPM and CaSL. This restructuring is outlined in more detail in Section 5.3.2.

For reporting delay minutes, the switch from PUMPS⁴ (the previous heritage reporting system used by Network Rail) to PSS Business Objects occurred last year, as outlined in the 2009/10 Q2 report. A comparison of delay minutes as extracted from PUMPS and from PSS Business Objects is provided in Section 5.3.3.

The Reporter Team concluded that, subject to the outstanding data checks referred to above, the implementation of Business Objects does not appear to have had any impact on the accuracy of the reported numbers since the previous audit.

4.2 SRP77

During the 2009/10 Q2 audit, the Reporter Team highlighted that Network Rail had difficulties with the accurate recording of cancellation data, in particular part cancellations. As a consequence, Network Rail used TOC data when reporting PPM, overwriting their own numbers with those supplied by individual operators. Network Rail had identified this as an area of concern, and, in order to facilitate an improvement, was implementing an upgrade to TRUST called SRP77 (Systems Release Proposal 77).

⁴A database which processes information contained in TRUST and FRAME (not an acronym)

One of the main areas of focus of the changes in SRP77 is to increase the number of locations that can be used as reporting points on all train schedules, by removing the dependency on TOPS. This increased the maximum number of locations from 84 to 150 per individual train schedule. It was also intended to make reporting more accurate, and to record more events on the train report, by means of the greater number of locations within the train schedule. The other major benefit was an ability to edit TRUST records after the event, to ensure incorrect or missing records could be amended without the restrictions previously imposed by TOPS.

The system upgrade was implemented in three phases designed to manage any risks:

- Testing the upgrade in the background whilst operators still use existing functionality
- Implementing new functionality whilst retaining the existing system as a fall-back
- Switching fully to the new system

The initial phase commenced in October 2009 with phase II starting on 14 March 2010. On this date all the proposed enhancements were delivered. The plan was then to switch off all TOPS procedures on 4th July 2010. At the time of the audit, this was predicted to take place on schedule.

Training was still being rolled out across the industry in May 2010. Training modules had been developed and trainers had been trained in the revised system. There were some acknowledged deficiencies in ensuring a full understanding of the changes across TOCs/FOCs, which the training programme is designed to correct.

The Reporter Team's chief interest in the implementation of SRP77 relates to its impact on the reliability of the recording of cancellation data. To better exploit the system change, Network Rail has implemented a new process since Period 1 2010/11 to exploit the improved system functionality. Network Rail now produces a daily discrepancy report by individual TOC on day 2. This is passed on by the lead Route to the TOC performance teams. The TOC and Network Rail can then carry out checks to identify any missing reliability events.

During the Reporter Team visits to Network Rail routes, the implementation of this new approach was audited. Clear evidence was seen that this new process is in operation. This was also confirmed in interview with both FGW and Southeastern representatives, and it is considered by both TOCs to be beneficial. The improved edit facility within TRUST then makes it simpler for Network Rail to amend the records to take account of the information supplied after the TOC investigation. This ensures the reliability events recorded in TRUST are more accurate.

In general, it was stated to the Reporter Team that the levels of discrepancy between TOC and Network Rail cancellation data are now very small as a result. However, since the process change was relatively recent, there are insufficient empirical data for the Reporter Team to be able to confirm this categorically. At the time of the audit there were only two periods of data available; these were reviewed by the Reporter Team, and did indicate a positive trend.

It is therefore concluded that the changeover to SRP77 has been implemented successfully, and is already producing a range of benefits, although the cancellations data the system produces are still being overwritten by TOC-supplied data, in accordance with an agreed industry process, and Network Rail thus remains dependent upon the TOCs' cancellations data for the time being.

Although Network Rail is still overwriting its own cancellation data with TOC data, the Performance Process and Controls Manager confirmed that this will be reviewed in light of the results and any discrepancy levels recorded in the future. No specific date to make this change has yet been set, as this will depend on Network Rail demonstrating to the TOCs

that their reported cancellation numbers are now robust. The Reporter Team will review this with Network Rail during the 2011/12 audit.

5 Performance KPIs

5.1 Introduction

The KPIs under review in this section of the audit programme are as follows:

- PPM (Public Performance Measure)
- CaSL (Cancellations and Significant Lateness)
- 5(c) Network Rail delay minutes to passenger Train Operating Companies (TOCs)
- 5(d) Network Rail delay minutes for Freight Operating Companies (FOCs) per 100 train km
- 6(a) Asset Management (track infrastructure delay minutes)
- 6(b) Asset Management (non-track infrastructure delay minutes)

The definitions of these measures, and descriptions of the processes for their collation, are contained in Network Rail's Performance Manual (see below). The objective of this part of the audit is to confirm that these KPIs are collated correctly, based on the data collected. Section 6 of this report deals with the collation of the base TRUST data used for the formulation of these KPIs.

5.2 Methodology

The Reporter Team met the Network Rail National Performance Team in Milton Keynes to carry out a detailed review of the collation processes for the performance KPIs. Since it was only eight months since the previous audit, the primary objective was to ascertain any changes to the procedures used, and to conduct checks to verify that the calculations were still being carried out in an accurate and consistent manner.

The Reporter Team discussed changes to the procedures with the Performance Data Champion and various members of the National team. This was done in a series of detailed interviews. The data checks were carried out in part in Milton Keynes, particularly in checking changes to spreadsheet design since last year, and data samples over the previous period were taken to carry out detailed checks afterwards (see Appendix B).

5.3 Findings

5.3.1 Reliability – Process & Procedures

As already stated, this audit focussed on changes to procedures since the last visit. The main changes since the last visit are the continuing rollout of Business Objects and SRP77 (discussed in Section 4), and the implementation of a new process for predicting the likely outcome of disputed delay minutes, important in publishing delay minute figures. This process is called the Adjusted Data Series (ADS). There has also been considerable updating and expansion of the processes for managing performance data, as contained within the performance manual, backed up by recruitment into the Milton Keynes team.

Adjusted Data Series

The previous system only allowed the estimation of the likely outcome of disputes at whole TOC level. The revised process is designed to calculate the impact at delay category level to give a more accurate picture of the likely outcome. The changes were agreed across the industry at National Task Force, the senior cross-industry forum, and managed through its sub-group, National Task Force – Operators Group (NTF-OG).

The new ADS was implemented in Period 10 2009/10, running in parallel with the old series before switching over to it completely. The Periodic Operations Period Report (POPR - previously referred to as the "ministerial report") uses the revised data. The IPPR report

supplements used revised ADS data from Period 1 2010/11, with the intention to switch across fully in Period 2. To facilitate this, ADS now holds three years' worth of revised data.

The ADS methodology uses historical data showing where disputed minutes, by delay category, are re-allocated, once a settlement is reached. The adjustment factors are updated every three months, based on the most recent data. Network Rail carried out an analysis of the likely impact of the change on the Red/Amber/Green status reported in the POPR using Period 10 2009/10 data. The analysis showed that 24 out of 190 reports would change status. However, this was a poor month because of the severe weather in January. In overall terms, Network Rail predicted that the reported figures would reduce reported Network Rail levels of delay slightly, whilst seeing an increase primarily in TOC fleet delays. However, it is important to note that the previous methodology was overstating the actual Network Rail 'take-back' of minutes, and the new methodology has been accepted by the industry as being likely to give a more accurate picture. The impact of ADS since its implementation is shown in section 5.3.3.

Performance Procedures

The Performance Manual, which is owned by the Performance Process and Controls Manager, has been considerably expanded and strengthened, with the most recent update being published on 10th May 2010. The definitions of PPM and CaSL are now both contained in Part A of the Manual, in sections 4.6 and 4.7 respectively. The other performance KPIs are all based on the use of delay minute data. The relevant definitions of the collation of delay data are also contained in Part A of the Performance Manual, in section 4.5. This sets out the overall requirements for data collation. A much more detailed breakdown of the compilation of these data is provided in Part B of the Manual.

As well as including better definitions and focus on key processes at both National and Route levels, it includes a much clearer focus on issues such as data verification. This includes a requirement for an annual audit of Route delay attribution arrangements. A focus on these checks is contained in Section 6 of this report.

The Performance Manual is now a very substantial document. Any future reviews should ensure that it continues to be a useable document and avoid making it too unwieldy for the user.

National Performance Team Staffing

During the last Reporter Team visit it was noted that the National Performance Team had a considerable number of vacancies, and that there was a concern that core knowledge was concentrated in key individuals. The improvement of procedures and documentation has lessened that risk, and alongside that there has been significant recruitment into the team. This is particularly the case in the Performance Process and Control Manager's team, which now is fully staffed, whereas at the last audit there were five vacancies.

5.3.2 Data Accuracy for PPM and CaSL

Review of Recommendations from 2009 Q2 Report

Following the recommendations made in the 2009/10 Q2 Report, and the transfer across to Business Objects, Network Rail has streamlined the PPM/CaSL calculation process. The main improvement has been the consolidation of the calculation process into five spreadsheets (compared to the 39 being used when the process was reviewed in 2009).

It is understood that the data flow of the new process has been finalised and mapped out. However the development of the related files is still work in progress, and this was taken into consideration in the Reporter Team's review. Formal documentation of the new process was also under development at the time of the audit, and as a result was not available to the Reporter Team to review this year. This will be checked as part of the 2011/12 audit round.

Network Rail has produced guidance for spreadsheet best practice (version Spring 2010), which has been used in developing the new process. This document focuses on the 'Top Ten' key issues which Network Rail outlines as being important to consider when developing spreadsheets. The Reporter Team have reviewed this document, and consider that it is a well-thought-out guide which addresses the concerns outlined in the previous review (as long as the guidelines are adhered to). Again, this area will be the subject of further review in 2011/12.

The Reporter Team have found that the spreadsheets developed for this process broadly adhere to these guidelines. There are clearly labelled separate sections for Inputs, Calculations and Summaries. Also included are Introduction and Contents worksheets which provide notes and a description of each worksheet contained in the spreadsheet. A consistent format has been adopted for all the worksheets, which allows ease of replication of worksheets for TOCs and Sectors, and ease of reviewing.

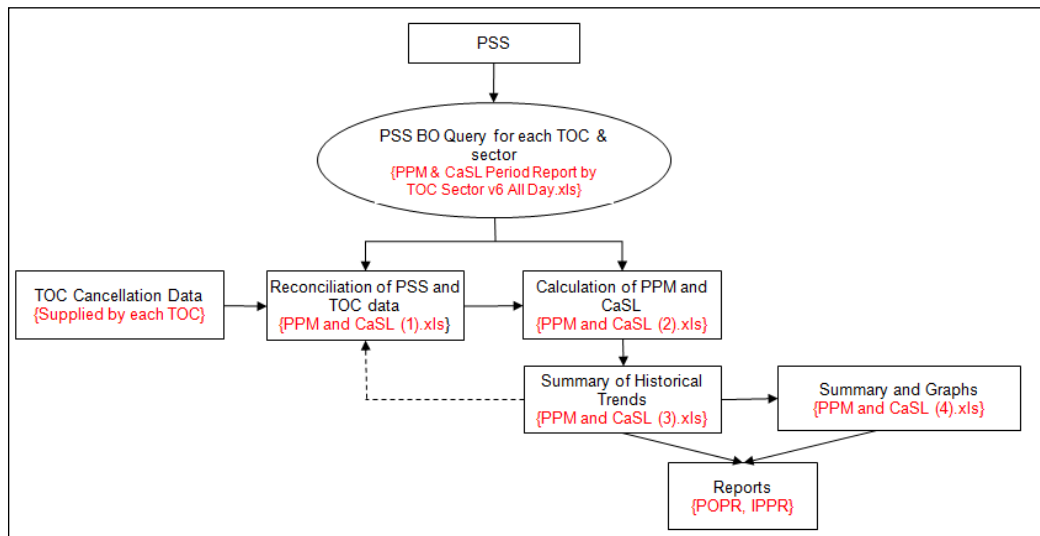
A small number of issues were observed which did not match the guidance as laid out by Network Rail, but it is recognised at this stage that some or all of these issues could in part be due to the fact that development is still work-in-progress. None is significant or has any impact on accuracy of reporting, but they are outlined below for completeness:

- 'Indirect' and 'Offset' functions have been applied extensively throughout all the 'Calculation' sections of the spreadsheets 'PPM & CaSL (1) TOC-PSS.xls' and 'PPM & CaSL (2) Consolidation.xls'. It is recognised that these may provide the most efficient approach to the calculation, but it is noted that the guidance states that these formulae should be avoided if possible, since they do not provide a reviewer with a clear audit trail.
- The individual TOC input worksheets in 'PPM & CaSL (1) TOC-PSS.xls' and 'PPM & CaSL (2) Consolidation.xls' have hard-coded values as far as row 167, and formulae-driven values from row 168 onwards. The distinction is not clear, although it is recognised that this could again be due to the spreadsheets being work-in-progress.
- Spreadsheet 'PPM & CaSL (1) TOC-PSS.xls' contains hard-coded inputs in each worksheet for data received by TOCs. It is suggested that these should be colour coded and documented to avoid confusion.
- Finally, it is noted that the spreadsheets may benefit from the use of named ranges to make updating more efficient, and to reduce risk of error.

Review of Calculation Process

A flowchart of the new process is as shown in Figure 5.1.

Figure 5.1: Performance Process Flowchart



Sampling checks carried out by the Reporter Team indicate that the flow of data from the extraction from PSS to reporting to the industry is accurate. Full details of these checks are provided in Appendix B.

This process is briefly outlined below.

1. Data Export from PSS

Data are now extracted from PSS using Business Objects. For each period, these data are extracted directly into a ‘PSS Data Export’ spreadsheet (currently named “PPM & CaSL Period Report by TOC Sector v6 All Day.xls”). This spreadsheet includes one line of information for each TOC (separated by sector if appropriate) for the latest period for which data are being extracted.

The process of extracting data from PSS did not form part of this review. At this stage there is not yet a formal documented procedure for this, although it is recognised by the Reporter Team that this is in progress. This will form part of the audit in 2011/12, and so can be reviewed in more detail next year.

2. Reconciliation of PSS and TOC Cancellation data

A spreadsheet has been set up to compare the cancellation data provided by the TOCs with those extracted from PSS (“PPM and CaSL (1).xls”). This spreadsheet also provides Network Rail with a historical view of how these measures have differed over time.

Separate worksheets are included for each TOC (and sector within a TOC), and each worksheet is in the same format (following best practice). For the current period, the PSS data in each worksheet are directly linked by formulae to the ‘PSS Data Export’ spreadsheet. For all other periods, the data are linked to the “PPM & CaSL (3).xls” spreadsheet, which effectively stores the historical trend data and so is in effect the ‘master’ historical data file.

TOC data on cancellations are then manually input to each TOC’s worksheet, effectively the same process as observed last year. Some amendments are then made to PSS by the performance analyst where appropriate. Ultimately, however, it is still the TOC-provided cancellation data which are used for reporting. There was one exception to this rule, whereby full cancellations for Arriva Cross Country (AXC) were read via a formula from PSS data, but this has now been removed, and Network Rail have brought AXC into the standard process, with their co-operation. Cross referencing to the full cancellation data previously provided by AXC indicated that these were the same as in PSS.

Samples of the TOC data which were originally supplied to Network Rail in various formats were checked for accuracy of input. Details are provided in Appendix B. Details of TOC cancellation data were collated from the visit to Milton Keynes on 18th May 2010. Based on these spot checks, the Reporter Team are satisfied that the TOC-provided cancellation data have been accurately entered into the process.

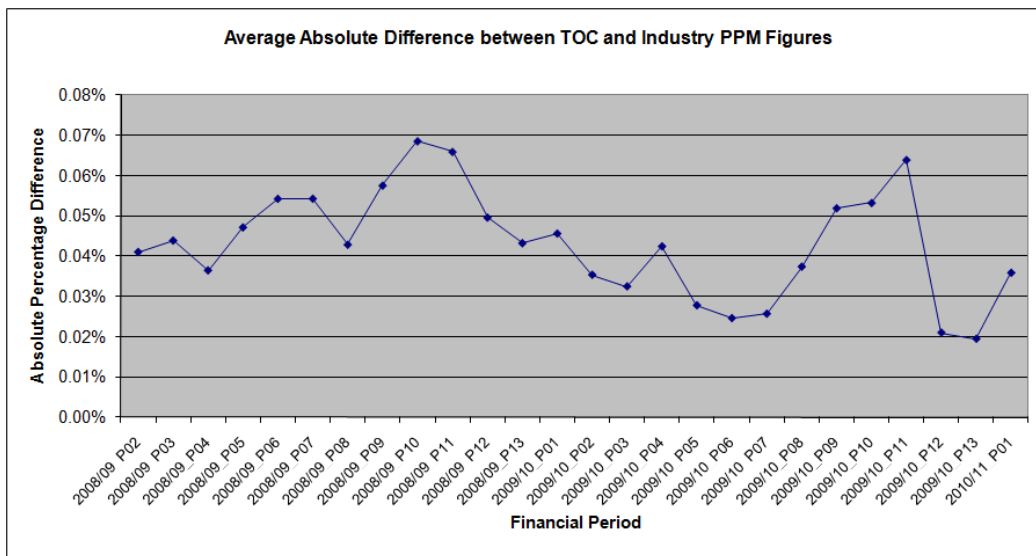
However, the same issues with this stage of the process as highlighted last year are still apparent; namely:

- Some benefits could be realised from working with the TOCs to produce a more automated process for gathering this data, e.g. through use of standardised templates, although it is acknowledged that Network Rail is unable to impose such changes upon TOC processes;
- No verification of the process used by TOCs to create their cancellation data has been carried out as part of this audit, as this is outside the remit.

In each of these cases, it is recognised that the benefits of SRP77 could mean that figures from PSS could be used to generate PPM and CaSL numbers, and so the reliance on TOC data would be removed. However Network Rail recognise that this is still likely to be some time away yet, and no formal timescale has yet been set.

On the issue of veracity of TOC cancellation data, the enhanced capture information provided by SRP77 means that this gives a good ‘sense check’ of TOC-provided data, thus giving Network Rail more evidence to challenge TOCs if they believe it is appropriate. Also, the new Day 2 cancellation process introduced by Network Rail should lead to fewer disparities between cancellation data within PSS and those captured by TOCs. Network Rail has been carrying out trend analysis of the discrepancies between PPM as calculated from PSS data, and PPM data as supplied by TOCs with cancellation figures, to determine whether the introduction of SRP77 has helped narrow the gap between these figures. While it is still too early to draw conclusions, Figure 5.2 shows this comparison for all TOCs who provided Network Rail with PPM data. The trend shows the average absolute difference in PPM per TOC. As the revised SRP77 processes were new, only two periods of data for the new process were available for the Reporter Team to review.

Figure 5.2: Comparison between Network Rail and TOC PPM Data



Source: Network Rail (PPM & CaSL (1) TOC-PSS.xls”

The chart shows that the differences between the TOC and Network Rail numbers are very small, the largest difference highlighted being 0.07%. The Reporter Team will review the

trends during the 2011/12 audit round, which will show more clearly any impact of the revised procedures.

3. Calculation of PPM and CaSL

The calculation process for PPM and CaSL for all the TOCs and Sectors has now been brought into a single spreadsheet ('PPM & CaSL (2) Consolidation.xls'), thus reducing the duplication observed last year⁵.

For the current period, data from the 'PSS Data Export' and 'PPM & CaSL (1).xls' spreadsheets are linked by formulae and thus automatically cascaded through this spreadsheet. For all other periods, as with 'PPM & CaSL (1).xls', data is linked directly to the 'PPM & CaSL (3).xls' historical trends spreadsheet. No instances of manual editing were observed in this dataset.

The one exception to the rule, as per last year, remains the Island Line service group of the South Western franchise. These data now link to a separate file generated from data supplied directly by the TOC, since this network is not connected to the TRUST system.

From the spot checks carried out, the Reporter Team are content that the calculations are sound and accurate, both for each TOC and for Sector Level calculations. Further details are provided in Appendix B.

It is noted that there are four worksheets in the 'PPM & CaSL (2).xls' spreadsheet which appear to contain some errors in historical data, some of which propagate through to the 'PPM & CaSL (1).xls' and 'PPM & CaSL (3).xls' spreadsheets. However, this has been reviewed and the Reporter Team have confirmed that these figures do not affect any reported numbers. It is assumed that these errors are still present only because these spreadsheets are still in development, and so will be updated in due course. However, this issue is described here for completeness:

- Data in worksheets 'PSS PPM', 'PSS PC', 'PSS TC' and 'PSS Run' between row 6 (1997/98 P01) and row 167 (2009/10 P07) are hard-coded and have identical numbers in each column for each period, and so are inaccurate. For three TOCs (TPE, SWT and VWC), there are no data until 2009/10 P08. From row 168 (2009/10 P08), the data are generated via formulae and are accurate.

Network Rail should remove these minor errors. This will be reviewed again during the 2011/12 audit round.

4. Industry Reporting

The results from the spreadsheet 'PPM & CaSL (2) Consolidation.xls' for the latest period are then fed into 'PPM & CaSL (3) History.xls', which forms the core data repository for all industry performance reporting by Network Rail.

The method of data transfer between 'PPM & CaSL 2' and 'PPM & CaSL 3' appears to be via a macro (all data in 'PPM & CaSL 3' are hard coded), and spot checks carried out by the Reporter Team confirm that the data shown in each spreadsheet are identical.

The data in 'PPM & CaSL 3' are linked directly by formulae to the spreadsheet 'PPM & CaSL (4) Graphs.xls'. This file is set up to produce a set of standard tables and charts which feed into the various Industry reports, thus ensuring consistency of production.

From the spot checks carried out, the Reporter Team are content that the figures reported in the IPPR and POPR reports are consistent with those in the various spreadsheets in this process, and so are accurate. Further details are provided in Appendix B.

⁵ Section 5.3, Independent Part A Reporter, Q2 Report 2009/2010

5.3.3 Data Accuracy for Delay Minutes

The process for reporting delay minutes from TRUST is now fully automated via PSS. One of the core issues around the accuracy of reported delay figures lies in the accuracy of the data within TRUST, ie the attribution of delay minutes. More details of the Reporter Team's findings in this area are outlined in Section 6.

More of the PUMPS data processes are captured in PSS now, and system checks have been instituted to verify integrity of data transfer between TRUST and PSS. PSS reconciliation routines are ongoing as PSS 'rounds' data slightly differently, and also picks up all updates and refreshes. For example, PSS updates every day, in contrast to the previous process, which was only periodic; this means that any dispute resolutions are reflected in the data much more quickly.

Delay data were supplied by the performance analyst at the Network Rail National Performance Team⁶ which show a reconciliation of the published Annual Return result from 2008/09, as produced through PSS and PUMPS. It is noted that 2009/10 data were not available for comparison, since Network Rail stopped using PUMPS during 2009/10.

The data supplied, as shown in Table 5.1, are annual Network Rail delay minutes as currently shown in PSS ADS for 2008/09 compared with the published Annual Return (which was extracted from PUMPS).

Table 5.1: Comparison between PSS and PUMPS Data

2008/09	PSS Equivalent	Annual Return	Difference (Mins)	Difference (%)
Passenger	7,186,734	7,208,574	(21,840)	(0.3%)
Freight	1,589,544	1,568,106	21,438	1.4%
Minor Operators ⁷	69,826	62,205	7,621	12.3%
TOTAL	8,846,105	8,838,885	7,220	0.1%

The differences in the system are effectively improvements which PSS offers over PUMPS, thus allowing the reported figures to be more accurate. Differences occur for the following reasons:

- When splitting delays, PUMPS would always round minutes up, so e.g. a three-minute delay split 50/50 would appear as two minutes for Network Rail from PUMPS, but is recorded correctly as 1.5 minutes in PSS.
- PUMPS-generated results would have been coded as in TRUST (plus commercial adjustments where applicable) within the timescales of the Network Rail refresh processes during the year. When the 2008/09 Annual Return was compiled in May 2009, there would still have been some incidents in dispute, particularly relating to freight, since freight incidents have historically had significant levels of dispute, and, at times, a comparatively long resolution time. Hence PUMPS would tend to understate the level of Network Rail delay to freight slightly. The introduction of PSS ADS would be expected to reduce the level of such understating of minutes.
- PSS provides more accurate reporting of services which change service code (or Operator) along the route. In contrast, PUMPS would identify a train along its whole route based on the Operator description at the train's origin, regardless of whether it changed service code along the way. Therefore, the difference for Minor Operators is largely driven by the non-franchised part of Heathrow Connect, where PUMPS was unable to identify this separately from FGW.

⁶ Data supplied via email on 18 June 2010

⁷ Non-franchised Operators

One core development which has been recently introduced as outlined in Section 5.3.1 above, is the new Adjusted Delay Series (ADS) which replaces the legacy approach.

At the time of the Reporter Team visit, the new ADS was still in the process of being rolled out to be included in the various industry reports. Network Rail provided the Reporter Team with a copy of the roll-out plan which indicated that the new process is now being used in the production of POPR and IPPR reports.

For IPPR, it is expected that the Period 2 2010/11 IPPR report will include ADS-generated data. In Period 1 2010/11, Network Rail produced two versions of the IPPR Supplemental spreadsheet; showing minutes with and without ADS. The Reporter Team were provided with a copy of each of these spreadsheets for review.

Analysis carried out on the data supplied by Network Rail indicates that the effect of the new ADS process on the IPPR delay minutes is that:

- Just over 5,000 more minutes move from TOC on Self⁸ (2%) to Network Rail;
- Just over 1,600 more minutes move from TOC on TOC⁹ (2%) to Network Rail; and
- 6,700 more minutes attributed to Network Rail (2%).

Network Rail submitted a paper to NTF-OG on 2nd February 2010 (copy provided to the Reporter Team), summarising the headline changes in reported delay minutes arising from moving from the legacy ADS to the new ADS based on Period 10 2009/10. This showed the opposite impact, with fewer minutes attributed to Network Rail. Therefore, the comparison of the effects in these two periods (of which P10 could be regarded as atypical) shows opposite swings in reported Network Rail delay minutes, although broadly by similar levels (circa 2-3%). To understand the effect of ADS in more detail, it would be helpful to be able to review more periods of data, which could be made available by Network Rail if they continue to develop two sets of IPPR data in parallel, i.e. with and without ADS. This should then be a subject of review next year. It is recognised that this is a new measure which is still in the process of being rolled out. It is therefore recommended that a more detailed review of the calculation mechanism is carried out as part of next year's review, once this process is fully developed.

Severe Disruption

Whilst undertaking the review of TRUST attribution set out in Section 6 of this report, the Reporter Team looked at how performance was measured during severe disruption. A particular example of this was the impact of the severe problems caused by the winter weather during early 2010.

Of the Routes visited there were differences in how the applicable timetable was created for the days worst affected. Western only cancelled services rather than planning a fully revised timetable, LNW basically ran a full service and cancelled on the day. Both of these routes coped reasonably well with recording punctuality and reliability events. Kent attempted on some days to upload a fully revised service designed to cope with the expected disruption. However they had major problems with managing the service on the day, with uploading problems causing severe difficulties on several days during the worst of the weather. Sussex route tried to run a full timetable but was quickly overwhelmed with the number of incidents occurring from early in the morning. In both cases this meant several days where the recording of both delay minutes and PPM/CaSL was not at the usual levels.

Considerable effort was spent after the poor performance days in reconstructing the applicable timetable on the affected routes and then trawling through the events to record the best estimation of delays and cancellations. The Kent Route team and Southeastern felt

⁸ TOC on Self – delay minutes caused by a TOC incident to itself

⁹ TOC on TOC – delay minutes caused by a TOC incident to other TOCs

that on two or three days their best efforts still probably left an error of around 3% in the final PPM calculation. It is unlikely a more accurate estimate could ever be produced. On the other days where sufficient details were available to fully recreate PPM, considerable resources were used to do this (see Section 6 of this report)

5.4 General Observations

There has been progress on the recommendations from last year. However, recommendations 2010.5.2 and 2010.5.4 were due for completion by March 2010, and have not yet been completed. Progress has been made on the first of these and it needs closing out. There is little progress evident in respect of the need to produce a plan to tackle the freight issues highlighted in the last audit. It is, however, likely that events such as the implementation of ITPS and the use of the new Theoretical Running Times (TRTs) may supersede the recommendation.

The strong process-based approach to reporting performance KPIs remains sound. This has been augmented by procedural and systems improvements in the short time since the last audit.

The national performance team in Milton Keynes has been considerably strengthened since the last audit by successful recruitment into key posts, and the general resilience of the operation has been enhanced by the development of improved process documentation.

The rollout of SRP77 has been managed without major problems, although it is understood this did require considerable unplanned management time to achieve.

The continuing roll-out of Business Objects as the primary reporting tool from PSS has progressed well, and has not had any impact on the accuracy of reported KPIs.

The Performance Manual (Parts A and B) has been considerably amended, and additional requirements have been published, some in response to recommendations from previous visits. However, The Performance Process and Controls Manager does need to consider any future changes to the Manual in the light of the need to manage the scope and size of the document, to ensure that it is still usable.

The data checks carried out have not highlighted any significant inaccuracies that raise concerns, but we note that the calculation process, including the relevant spreadsheets, is still under development and yet to be fully documented.

The severe winter weather severely tested the reporting processes on the worst days on some routes. Network Rail, along with affected TOCs such as Southeastern, had to put considerable effort into recreating the performance figures for these days. It is likely that on a handful of days the PPM figure was inaccurate by around 3%. However, when taken as a whole, this does not have a significant impact on the reported MAAs.

5.5 Conclusions

The reporting of the performance data across all the KPIs remains sound, with the processes further improved since the previous Reporter Team Visit.

The severe disruption caused by the worst of the weather during last winter did create problems in capturing both punctuality and delay data. Whilst not significantly affecting the KPIs, given this was only an issue on some routes, very significant effort was required to maintain data quality levels.

5.6 Confidence Ratings

Following a review in March 2010, a revision to the confidence ratings used up until that date was agreed with ORR and Network Rail. This is not substantially different to the previous system, still requiring scores for reliability and accuracy. The definitions have

however been amplified slightly and the number of accuracy bands reduced. The use of manual or automated calculation has been factored into the description. An additional accuracy factor of X has been added for KPIs that are calculated from a very small data sample, or where the accuracy cannot be reliably assessed.

Tables 5.2 and 5.3 describe the revised descriptions used to assess the KPIs in this report:

Table 5.2: Confidence Grading System: Reliability

Reliability Band	Description
A	Sound textual records, procedures, investigations or analysis properly documented and recognised as the best method of assessment. Appropriate levels of internal verification and adequate numbers of fully trained individuals
B	As A, but with minor shortcomings. Examples include old assessment, some missing documentation, insufficient internal verification, undocumented reliance on third-party data.
C	Some significant shortcomings in the process which need urgent attention.
D	Major shortcomings in all aspects of KPI: process unfit for purpose

Table 5.3: Confidence Grading System: Accuracy

Accuracy Band	Description
1	Calculation processes automated (to a degree commensurate with dataset size); calculations verified to be accurate and based on 100% sample of data; external data sources fully verified. KPIs expected to be accurate to within $\pm 1\%$
2	KPIs expected to be accurate to within $\pm 5\%$
3	Shortfalls against several attributes: e.g. significant manual input to calculations or incomplete data verification or less than 100% sampling used. KPIs expected to be accurate to within $\pm 10\%$
4	KPIs expected to be accurate to within $\pm 25\%$
5	Calculation processes largely manual with significant errors; data inconsistently reported and unverified; KPI based on small data sample or cursory inspections and verbal reports. KPIs unlikely to be accurate to less than $\pm 25\%$
6	No longer used
X	KPI is calculated on a very small sample of data, or accuracy cannot be assessed for some other reason (to be qualified in text of report)

The ratings for the performance KPIs are:

5a) PPM – the audited data has a rating of A for Reliability and 1 for Accuracy. The impact of the winter problems has a significantly less than 1% effect. This remains the same as last year.

5b) CaSL – the audited data has a rating of A for reliability and 2 for Accuracy. This change since last year (the rating was then B2) reflects the fact that definitions and processes are now fully documented, enhancing the reliability of the KPI. The impact of the TRUST upgrade, SRP77 and the associated process improvements are not yet fully 'bedded in', but, once the SRP77 upgrade is fully embedded, the accuracy of the KPI should be enhanced sufficiently for this measure to achieve a rating of A1.

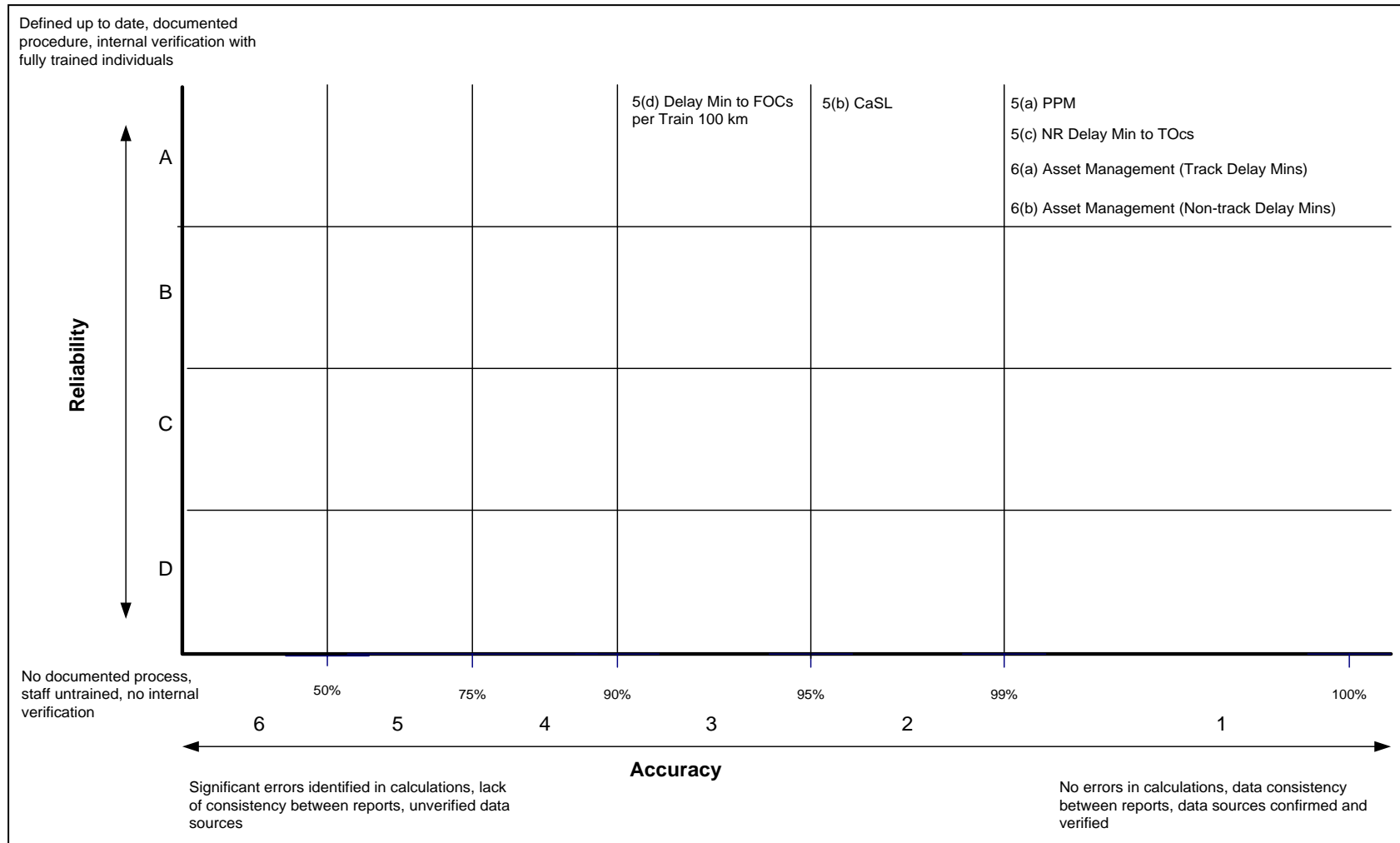
5c) Network Rail Delay Minutes to TOCs – the audited data has a rating of A for Reliability and 1 for Accuracy.

5d) Network Rail Delay Minutes to FOCs per 100 Train km – the audited data has a rating of A for Reliability and 3 for Accuracy. This reflects the rating given last year and the fact that currently the accuracy issue in train km/mileage data has still not been fully addressed.

6a & 6b) Asset Management (Track/Non-Track Delay Minutes) - the audited data has a rating of A for Reliability and 1 for Accuracy. This dataset is a direct derivative of Network Rail delay minutes.

These ratings are summarised on the following page in Figure 5.3. In the case of the performance KPIs the change in the confidence rating system is not felt to have affected the ratings awarded.

Figure 5.3: Summary of Confidence Ratings



5.7 Recommendations

Table 5.4 contains the outstanding recommendations from 2009/10, and also a pair of draft additional recommendations for the Performance KPIs. The new recommendations are numbered 2011.5.1 and 2011.5.2, to reflect the (end of the) current year and the Performance KPI number. The recommendations are combined, in Section 7, with those for TRUST Delay Attribution (TDA), in order to provide an overview of the recommendations outstanding and made in the current Quarter.

Table 5.4: Performance KPI Recommendations

No.	Recommendation to Network Rail	Locations in Text	NR Data Champion	Due Date
2010.5.2	Improve Document/Data Version Control <ul style="list-style-type: none"> • Performance Spreadsheets Version Control 	Section 3	Stephen Draper	September 2010
2010.5.4a	Devise and agree a plan to resolve outstanding freight mileage data issues	Section 3	Stephen Draper	September 2010
2010.5.4b	Devise and agree a plan to resolve outstanding freight SRT data issues	Section 3	TBC	September 2010
2011.5.1	Network Rail should complete the formal documentation of the procedure associated with data export from PSS	5.3.2	Stephen Draper	September 2010

5.8 Areas for Future Review

The following is a synopsis of specific areas identified for checking at the next audit. This is not meant to be an exhaustive list but simply a useful checklist of those things that require further checking as part of the audit programme.

1. Check that the new PPM/CaSL data flow process is fully embedded, documented and operating correctly. This will specifically check that the errors noted in the PPM and CaSL 2 spreadsheet have been removed.
2. Review the data extraction process from PSS.
3. Review the impact of the revised SRP77 procedures on cancellation data and any process changes Network Rail have introduced in the interim period.
4. Review the impact of the new Adjusted Data Series (ADS) process based on a full year of data.
5. Review the suitability of the current ratings system for the assessment of the Performance KPIs, for which a greater accuracy level than $\pm 1\%$ (historically equivalent to a rating of 1) is required to merit the highest accuracy rating.

6 TRUST Delay Attribution Review

6.1 Introduction

TRUST Delay Attribution (TDA) is the fundamental building block of performance reporting. An understanding of the consistency and accuracy of TDA is important in confirming that the subsequent downstream reporting processes are based on fundamentally sound data. Because of this, it was agreed that TDA should be the primary focus of this performance audit.

To undertake the audit, the Reporter Team held a series of reviews. Initially, a detailed meeting was held with the National Performance Team in Milton Keynes, and this was followed by three two-day visits to a cross section of Routes. Each Route session also included an interview with a TOC representative, plus a freight representative at London North Western (LNW). A summary of the meetings held is shown in Table 6.1.

Table 6.1: Meetings Schedule

Date	Route/National	Attendees
20.05.10	National Team, Milton Keynes	National Data Quality Specialist Performance Support Analyst
24-25.05.10	Western	Route Performance Manager Acting RPMM Data Quality Specialist (x 2) National Data Quality Specialist National Performance Support Analyst Former RPMM (only recently left the role) First Great Western Performance Representative
26-27.05.10	Kent	Route Performance Measurement Manager Kent/Sussex Southeastern Performance Strategy Manager National Performance Support Analyst (day 1) National Data Quality Specialist (day 2)
7-8.06.10	London North Western (LNW)	Route Performance Measurement Manager Acting Attribution Manager Data Quality Specialist Performance Support Analyst London Midland, Performance Regimes Manager Freightliner Performance Team Representative

Each of the Route reviews consisted of an initial meeting with the Network Rail attendees listed and a further session with the TOC/FOC representatives, with the Network Rail teams still in attendance. A list of areas to be discussed was provided prior to the meeting (see Appendix D). These meetings were very detailed sessions, seeking a clear understanding of the management of TDA on the Route. The remainder of the visit was spent verifying records to support the evidence given at the review session and carrying out a detailed sampling of TDA incidents to check for compliance with the relevant procedures.

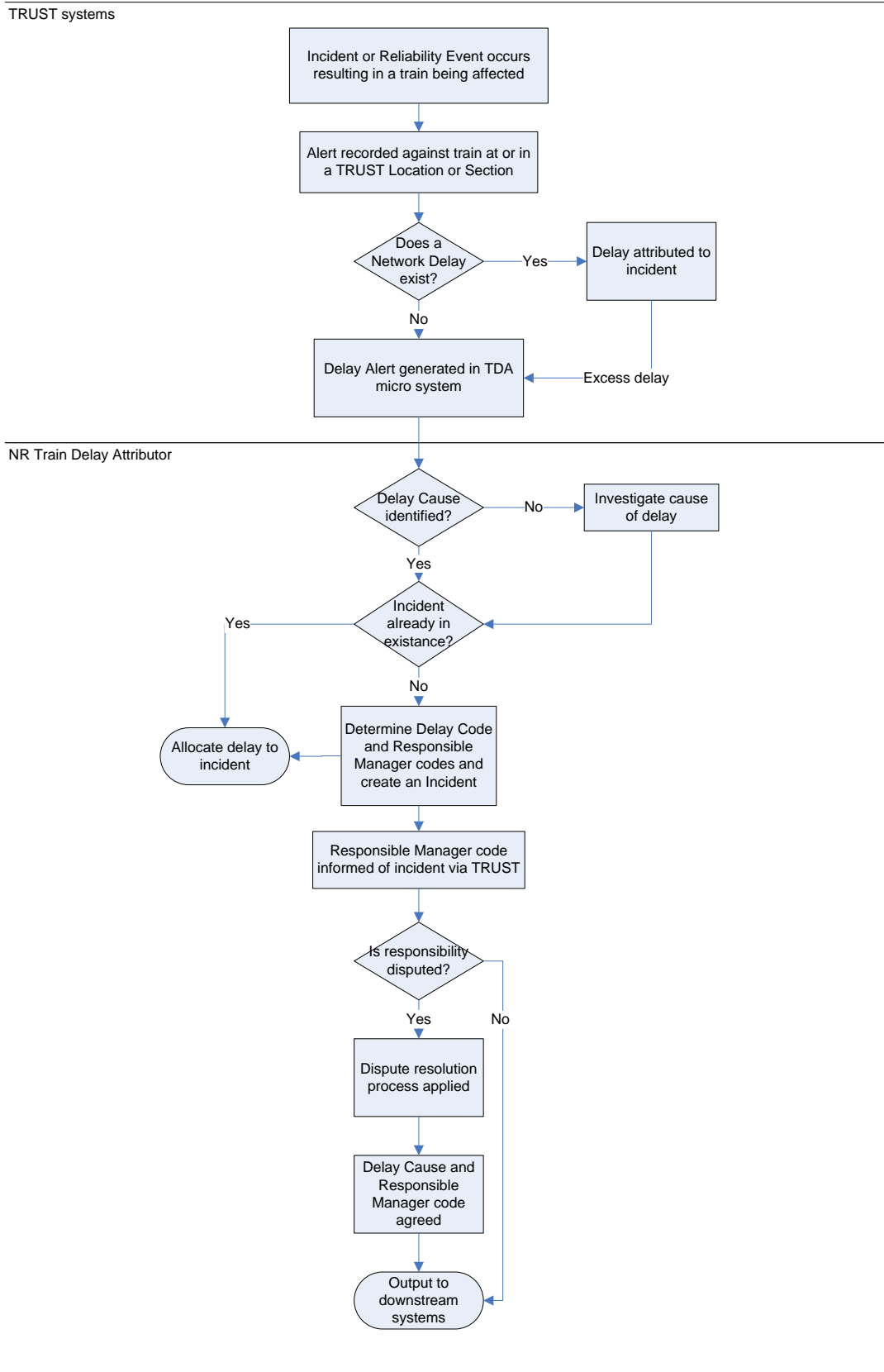
6.2 Findings – Processes and Procedures

6.2.1 Overview of TRUST Delay Attribution

The attribution of delay minutes within the TRUST system is the basic building block in the collation of performance data. To assist the understanding of this section of the report,

Figure 6.2, which is taken from the Network Rail Performance Manual Part b, sets out the level 1 TDA process in a simplified flowchart form.

Figure 6.1: TDA Process Flowchart



It shows the basic function of the TRUST system and sets out the responsibilities of the TDA staff to investigate incidents and handle disputes with the relevant TOC. The resulting information is then output to other key downstream systems such as PSS.

Disputes that are unresolved on day 1 then pass into the level 2 dispute procedures, which are handled between the Route and TOC performance teams. Any disputes not resolved after day 7 must then be resolved between the Route Performance Measurement Manager (RPMM) and the TOC performance manager (level 3). If it cannot be resolved before day 42, it will then be dealt with by the Route Director and TOC MD (level 4).

6.2.2 Documentation

There are several key process documents that are applicable to TDA. These are:-

- Delay Attribution Guide (DAG)

This is an industry-wide document published and owned by the Delay Attribution Board (DAB), a joint industry body with overall responsibility for delay attribution. The DAG is regularly updated (not more than twice a year) with changes signed off by both DAB and ORR. The latest version was issued on 2nd May 2010. The DAG gives guidance on the coding of delay and cancellations to ensure consistency of application.

- Network Rail Performance Manual

This manual sets out Network Rail's processes for the management of TDA for both attribution and resolution of any disputes. The manual also sets out the required internal audit and verification processes. The latest version is dated May 2010 and was re-issued just prior to the audit. This re-issue includes some substantial changes to the TDA processes, particularly in terms of the required verification checks.

- Performance Data Accuracy Code (PDAC)

This is a Network Rail-produced document which sets out to govern the interpretation of the Network Rail requirement to accurately record trains at recording points as defined in the Network Code Part B. Alongside this document, Network Rail is required to agree with TOCs a detailed breakdown of what standards should apply at all reporting points, including berthing offsets, in a Margin Book. The latest version is dated 20th September 2009.

- Essential Elements for Standard TRUST Incident Creation (EESIC)

This sets out the acceptable standards for incident creation, covering the use of standard header descriptions, for example. The population of key fields is described in detail, as is the use of free form text to make subsequent use and analysis of incident data easier. The current version of EESIC was published in April 2010 (version 7.1). A Route-specific appendix is also issued, covering any local instructions and a list of the local CRS codes.

- Internal Delay Attribution Guidance Notice (IDA)

These are issued by the Network Rail National Performance Team on an ad hoc basis to set out revised instructions prior to their publication in other documents, e.g. the DAG. The latest issue is IDA 22, which covers a new matrix for attributing infrastructure maintenance incidents. IDA 22 is undated and the status of any previous IDAs is not clear.

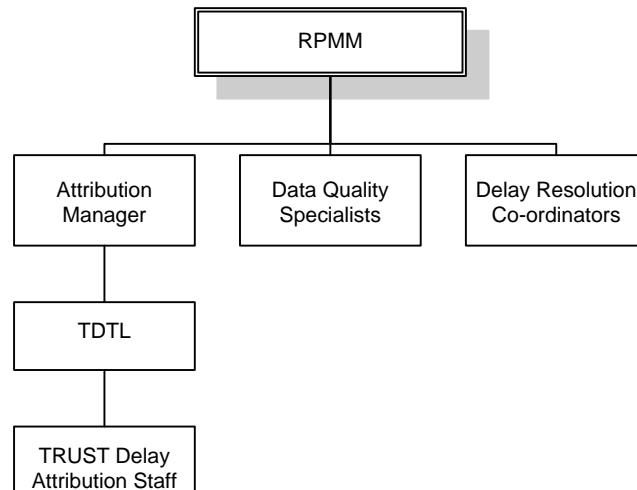
There has been considerable progress over the last year within Network Rail in bringing their procedures up to date and, as noted above, all of the documents have only recently been re-issued, some, e.g. EESIC, for the first time in a number of years,. This means that during the Route visits many of the revised processes were fairly new and a variable level of compliance was noted (see section 6.2.7).

6.2.3 Organisation

The Reporter Team reviewed the way that TDA requirements are organised across the Routes and, despite a 'templated' organisation, significant differences were found, particularly on Kent.

In all cases the responsibility for TDA is managed by the Route Performance Measurement Manager (RPMM) who reports directly to the Route Performance Manager (RPM). In the case of Kent, the RPMM is a shared role with Sussex, with the RPMM spending at least two days per week on each route. The generic structure is shown in Figure 6.2.

Figure 6.2: TDA Organisation Structure



The numbers of TDTL (Train Delay Team Leader) and TDA (TRUST Delay Attribution) staff differ on each route because of the relative sizes of the routes, although it was stated to the Reporter Team that a recent review had highlighted that the levels in some Routes did not necessarily match delay/incident volume levels.

The TDTL positions on Kent have been abolished during a recent review (this is also the case in Sussex). On the remaining Routes that have these posts, the role does not appear to necessarily carry out the same functions. The absence of the TDTL posts on Kent added to the problems experienced during the severe weather last winter (see section 6.3).

Turnover in the TDA posts on all the Routes visited has been relatively low, and certainly lower than seen in the past. However all the Routes seen have undergone major changes in personnel in the roles of Attribution Manager, Data Quality Specialists and, in two cases, the RPMMs themselves. This has had an impact on the carrying out of certain key functions such as verification checks, which are highlighted elsewhere in the report.

TDA staff are largely based in Control offices across the UK. There are however still some exceptions. All the Kent TDA staff are located in signalling centres (London Bridge and Ashford). The TDTL staff were based in the Integrated Control Centre, but, since their abolition, there is no longer a TDA presence there. On LNW, the West Midlands TDA staff are still based in New Street Power Box, although the rest of the TDA staff on LNW are in the Birmingham and Manchester Control offices.

In addition to the Route Teams, the Performance Process and Controls Manager has a new national team which is responsible for achieving greater national consistency in the required processes. This team includes the National Data Quality Specialist and the Performance Support Analyst. The former post is responsible for the production of the national data quality report, which was in final production at the time of the audit. The latter post will be responsible for carrying out annual audits on the Routes. The national team is responsible

for all the procedures, and owns all of the internal Network Rail procedures referred to above.

6.2.4 Training and Briefing

Given the considerable levels of technical system knowledge required, in addition to the scale of the procedural understanding outlined earlier, the Reporter Team examined what training and briefing was offered to TDA staff. All new starters are now offered training on a six-week national course delivered by the national TRUST trainer. This is supplemented by hands-on experience gained alongside existing TDA staff. It normally takes between three and six months from the start of training for new starters to become competent to work alone; this does appear to vary across the routes. However, to fulfil all the competence requirements, as measured within the Network Rail competence system (Cognisco), can take longer, given the need to complete four modules. This is a considerable training requirement, which represents a substantial investment by Network Rail in the individuals concerned.

Ongoing briefing of TDA staff is important to maintain knowledge, and to ensure consistency by passing on lessons learned and updating on recent changes (e.g. newly issued IDAs). There is no standard approach to this briefing across the Routes currently, and no laid-down minimum requirement.

Western Route have recently re-issued their rosters to give each TDA staff member eight briefing days per year and eight training days. A briefing pack is produced for use at the briefing days. However, this roster has only just been agreed. Current briefing records show there have been gaps in the briefing cycles, for example at the time of the audit the Cardiff TDA staff had still not been briefed on the revised EESIC requirements. This was caused primarily by changes in the management team. The briefings need to be completed, and good records kept.

On Kent, the process has relied on the use of spare days in the roster, with staff being brought in to the office in Waterloo. These occasions have been used to get TDA staff to undertake their Cognisco assessments. There are briefing days in the roster, but these have been used more for development (visits to key locations for example) than for formal briefing. Generic briefs are produced and sent to staff on a regular basis. These are particularly used to correct recent issues highlighted during management verification checks. The records of who has been briefed are not current, caused mainly by recent staff changes and long-term sickness. It was therefore not possible to verify that all staff had received the necessary briefings, and Kent need to ensure their records are kept up to date and that routine briefing is completed in accordance with the requirements.

LNW follow a similar pattern to Western for training, using the HQ trainer, if available, to train new entrants. Competence is managed through the Cognisco process.

Briefings are given every week in both Manchester and Birmingham, held to catch both the early and late shifts, which means everyone on the roster will normally be briefed every four weeks. Additionally, a training/briefing day is built into the roster every 11 -12 weeks which picks up on major issues, covers individual development, and also generates feedback from the team.

The staff training records for LNW were checked and found to be in order. Briefing material and attendance records were also checked, indicating high levels of attendance, in excess of 85%.

6.2.5 Verification Checks

The Network Rail Performance Manual sets out the new requirements for internal audit of the application of the requirements of the company procedures.

The manual sets out the requirement for the National Performance Team to produce a periodic National Data Quality Report. At the time of the review the first report for at least six years was in production, but had not yet been published. This was being undertaken by the National Data Quality Specialist.

The National Performance Team is also now required to carry out an annual audit of each route, to confirm compliance with the relevant standards. This process has not yet started, although the Performance Support Analyst did attend the Route reviews with the Reporter Team, to assist him in putting together a programme and to help the Reporter Team with their work.

Finally the Performance Manual sets out a series of detailed check requirements that the Routes must carry out. These are set out in some detail in Section 9 of Part B of the manual.

The Reporter Team reviewed evidence of the checks at each of the Route visits. As some of the checks were new, there was an expectation that these would be less well-documented than the more established checks. However, in the cases of Western and Kent, there were considerable gaps in a number of the checks being carried out. On Western this was primarily due to the change in personnel (partly because of key team members joining the National Team), and the checks not being done/recorded due to vacancies. The verification check records kept by the Route were audited by the Reporter Team, and showed that, on Western, these checks had been carried out in accordance with the requirements of the performance manual over the last two periods.

The primary issue in Kent was the need to use the Data Quality Specialist and other resources to help investigate the high levels of delay not correctly attributed during the severe winter weather. This has been further exacerbated by long-term sickness in more recent periods. There were also no records of actions taken when issues were found during checks. The small size of the Kent team means that it is particularly vulnerable to the loss of key staff or to major events such as last winter's heavy snowfall.

The records on LNW show a high level of compliance with the checks that were applicable before the most recent update to the performance manual. Comment was passed that the revised National checks now required considerable re-formatting of data from the checks carried out on the route. Similarly, the Route has continued to carry out checks no longer mandated within the Performance Manual, since it finds them useful in monitoring staff performance. It is also noteworthy that LNW use the TDTLs to carry out a high proportion of the checks, given that these posts no longer exist in Kent.

Concerns were expressed during the audit that the overall scale of the verification checks was now very high. It is important that Network Rail reviews the checks, once they are bedded in, to check whether the workload is realistic and the required results are being delivered. In particular, this needs to be considered against the differing staff levels on some of the Routes.

In the meantime, the Routes must keep better control over their record-keeping, and consider how they will cope with changes in key personnel in the future.

6.2.6 Local Agreements

One area that has affected data quality in the past is local agreements between a Route and TOC to vary from the standard requirements in the DAG. The Reporter Team checked for the existence of any of these arrangements, and the impact they may have.

Kent Route does not have any formal agreements in place now, having abolished a 'small minutes' agreement with Southeastern in recent years.

Western has an agreement in place with FGW. This covers:

- Sub-threshold minutes
- No known reason/unexplained delays
- 'Awaiting FGW Reports' disputes

This agreement in effect varies the requirements of the DAG, and the revised provisions are set out. However whilst this appears to work well on the Western route, it appears to cause issues elsewhere. The Sussex/Kent RPMM does not apply it on the Sussex route, to avoid confusing the TDA staff with a different set of instructions for one operator.

On LNW, the Route has a number of local commercial agreements in place with the following Operators for which it leads:

- London Midland
- Merseyrail
- Virgin West Coast
- Arriva Cross Country
- Chiltern
- DBS (FOC) – 3 reason codes, all documented

The evidence presented showed that these are all documented and kept current. Some of the agreements are quite extensive in terms of the areas covered and the codes affected – particularly the Merseyrail and Chiltern examples – and a considerable degree of management effort and endeavour has clearly gone into establishing and documenting them.

The use of local agreements does highlight areas of inconsistency which may be better handled by having them covered better in the national industry procedures. One important example is how incidents are treated whilst awaiting reports from traincrew to verify or challenge the initial attribution. Whilst Kent and Southeastern do not have a formal agreement, Southeastern does not routinely put incidents awaiting reports into dispute. This is done by other TOCs. The FGW agreement sets out how this will be handled and in particular how incidents where reports are not forthcoming will be attributed (in the FGW case, incidents less than 15 minutes will be taken by Network Rail, while '16 minutes plus' incidents will be attributed to FGW, provided the TOC maintains a 75% return of reports within 7 days).

The national Performance team should review the use of local agreements with each Route, to satisfy itself that the agreements in place are relevant, appropriate, and no more extensive than absolutely necessary, as part of a programme to remove as many as possible to manage national consistency. Where appropriate, such as in the case of incidents awaiting traincrew reports, these should be put forward for adoption of a national industry approach.

6.2.7 TDA Incident Checks

A sampling exercise was undertaken at each of the Routes visited to identify whether delay attribution appeared to be applied accurately and consistently. Focus was specifically on:

- Evidence of correct attribution of delay - consistency with the DAG
- Compliance with EESIC guidelines
- Other generic issues which emerge

The three Routes sampled accounted for 49% of incidents in Period 1 2010/11, as shown in Table 6.2.

On each Route, six different time periods (two-hour periods for Kent and Western, one hour for LNW) were sampled, based on the previous seven days (representing the data still available within TRUST). Within each of these periods, all incidents were examined. The sampling was aimed at providing a suitable coverage of shifts and differing levels of incidents (to reflect busyness of TDA Level 1 staff). It should be noted that there were no periods of significant disruption in the seven days leading up to each Route visit, so each time period selected could be seen to reflect a typical level of workload.

Further details of the sampling exercise and outcomes are highlighted in Appendix C. This section provides a brief overview of the core findings.

Table 6.2: Incidents by Route

Route	Incidents	
	Number	Percent
Anglia	5,240	8%
Kent	4,548	7%
London North Eastern	12,779	19%
London North Western	19,972	30%
Midland & Continental	3,223	5%
Scotland	6,564	10%
Sussex	3,677	5%
Wessex	3,309	5%
Western	8,329	12%
TOTAL	67,641	100%

Attribution Accuracy / Consistency with DAG

- In general, on each Route, the observed level of accuracy of delay attribution is very good. A small handful of minor issues were observed which are noted below, but these are not believed to be sufficient to merit any concerns over the accuracy of reporting of each KPI.
- On each Route, a number of examples were observed where it appears that different TOCs have different policies as to how to attribute certain delays. While this is internal to the TOCs, it can cause inconsistencies of attribution when comparing between TOCs. The most common issues appears to be around whether certain types of delay are categorised as “T” codes (traincrew, so 701C) or “R” codes (‘retail’, so 701E). It should be noted that, from the sampling, there appear to be very low levels of instance of this, affecting small numbers of minutes, and so this will not have a significant impact on delay reporting.
- Also, on each Route, it was noted that for certain incidents which are due to a FOC (generally relating to access to/exit from yards), it tends to be the FOC which ultimately prescribes the delay code to which the incident is attributed, although the incident text may not always give any evidence of investigation.
- There appeared to be some inconsistency in how delays due to ‘set swaps’ are coded, specifically when these are for planned maintenance. There is limited guidance in the DAG and similar examples have been coded differently:
 - Western (21/05) incident 27155 coded as MZ (701D)
 - Western (21/05) incident 27270 coded as MU (701A)
 - Western (17/05) incident 19772 coded as MU (701A)
 - LNW (01/06) incident 51577 coded as MS (701A)

- LNW (01/06) incident 51667 coded as MZ (701D)

While the numbers of minutes affected by these incidents are small, this does highlight an area of inconsistency that would benefit from a review in the DAG.

- Some other minor 'grey areas' in the DAG were highlighted during the review, which could cause inconsistent attribution. It should be noted that in most cases observed, this is unlikely to affect the KPI the incident is attributed to. Examples include:
 - Examples of inconsistency over attribution when a train was delayed due to wheelchair space being taken up by luggage. In some cases, this is attributed to the relevant code linked to wheelchair users (RC/RQ – so 701E) and at other times linked to the train guard (TH – 701C);
 - Code T4 (Loading Supplies including catering) vs. TK (Train Catering Staff including contractors). There is no guidance as to the distinction between these, yet they are aligned to different KPIs (T4 aligns to 701E, TK aligns to 701C);
 - Code RR (Loading reserved bicycles presented late) and Code RS (Loading unreserved bicycles). From sampling, two incidents related to bicycles were observed: in one example on Western, and in one example on LNW, an incident was initially attributed to RS. Both codes relate to the same KPI;
 - One example incident due to animals on the line indicated how the flow chart linked to this type of incident in the DAG is easily misinterpreted (although the end KPIs would not be affected).
- A number of examples were observed where the initial incident report provided by the Level 1 TDA staff is identical to the incident description. This indicates no evidence of any further investigation made into the incident, and therefore no evidence that the initial attribution is correct – especially a potential issue when such delays are simply accepted in the system. Of the Routes visited, it was noticeable that this was more prevalent on Western compared to the other Routes (note the numbers below exclude freight cancellations):
 - Western: 16 instances (8% of sample of 207 incidents)
 - LNW: 8 instances (4% of sample of 190 incidents)
 - Kent: 0 instances (0% of sample of 221 incidents)
- On LNW, it was observed that a relatively high number of small incidents of delay were coded to ZZ¹⁰ (mostly sub-threshold delay incidents). 18 such incidents were observed, which represents 9% of all incidents sampled. This compares to just six incidents (3%) observed on Western, which were coded to ZZ.
 - Both Arriva Cross Country and Virgin West Coast agreements permit attribution to ZZ; for Arriva Cross Country, it is when "TOC fails to identify root cause" and for Virgin West Coast, it is for time lost in running events where no cause can be identified, but only after exhaustive investigation. If there are many ZZs, one can only assume a lack of 'exhaustive investigation'. None of the other local agreements appears to provide a 'ZZ' option overtly.

Compliance with EESIC

- A common theme across all Routes is that the adoption of EESIC is still work-in-progress with a number of non-compliances observed. The level of non-compliance across Routes will be captured in the National Data Quality Reports going forward. The

¹⁰ ZZ – Unexplained delay minutes lost in running

main types of issue which were identified from the sampling process (examples shown in Appendix C) were:

- Inconsistency in mandated use of CRS code / TIPLOC in Incident description
- Use of 'local terminology/jargon' in Incident description field, e.g. from Kent "FAV DJ TCF HARD DOWN"
- Failure to record equipment number (if appropriate)
- Failure to record fault number (if appropriate)
- It was noted in the review that EESIC does not provide guidance on how to describe incidents due to Late Starts, leading to potential inconsistency in description.
- It was observed that LNW have developed a number of templates for Level 1 TDA staff to apply to the Incident Log. The aim of these templates is to give a checklist to the TDA staff, as well as to provide consistent information on the incident, which can be helpful for the TOC and Level 2 TDA staff (if required). An example for incidents initially attributed as TO by Network Rail is shown below. These templates are available on TDA staff desktops and appear to be used consistently by both Birmingham and Manchester TDA staff. The whole text can be copied into the Incident Log and provides a checklist of what the TDA staff should check, plus a template to fill in who was spoken to and when (e.g. WMSC signal box in the example below).

G61 3 LOST DDG XTS

TSID CHECKED AND SHOWS NO CONFLICTING MOVEMENTS;

CCF CHECKED AND SHOWS NO CONFLICTING MOVEMENTS;

SIGNALLER(S) BELOW ADVISED THAT THIS SERVICE RECEIVED NO ADVERSE SIGNALS AND KNOWS OF NO OTHER CAUSES OF DELAY WHEN ASKED;

ALL TSR'S & ESR'S ACCOUNTED FOR;

NO KNOWN INFRASTRUCTURE PROBLEMS CAUSING DELAY TO THIS SERVICE.
COULD TOC ASSIST WITH DELAY PLEASE? THANKS.

SIGNALLER(S) ASKED: WMSC

TIME CONTACTED BOX(ES): 2230

TRACTION NUMBER: NOT ALLOC

- It was noted by the National Performance Support Analyst that LNE have also adopted similar types of templates, although both Routes have developed these in an ad hoc manner and independently. Adopting such a process within EESIC would bring benefits in standardising this good practice across the Routes.
- The appendices to EESIC from Great Western, Kent and LNW were examined and compared. Standard guidelines in EESIC state that the CRS code should be included in the incident description field if it exists, otherwise the TIPLOC should be used. While the Great Western appendix listed all locations on the Route, and outlined both the CRS code (where applicable) and the TIPLOC, the LNW appendix only included locations which have a CRS code, and did not list any TIPLOCs. This gives rise (as shown in the evidence) to locations which do not appear in the LNW Appendix being miscoded (either location name, or incorrect TIPLOC).

Other Observed Issues

- A small number of inconsistencies were noted between the time shown in the Start Time field, and the start time of the incident as recorded in the Incident Log Text. This issue was only observed on Western Route
- On Western, a number of incidents were observed where the 'M8' code (DMU failure: Other) was used for initial attribution, yet the actual (correct) cause of the incident had been detailed in the initial incident log. While the review indicated that the delay minutes would ultimately be updated to the correct pot, such practice leads to additional (unnecessary) work.
- Examples were identified of CCF not being used at Level 1 when it could have explained reason for incident (and saved work later on). Also, examples were observed where the initial incident text stated that CCF shows no conflicts, whereas the later text stated that the incident occurred in an area not covered by CCF (thus highlighting an inconsistency in the initial log).
- It was noted that TOCs tend to apply certain delay codes as 'flag codes' at Level 1, which is effectively to alert Level 2 that this incident is disputed, e.g. TR appears to be used for Arriva Cross Country. In such circumstances, the initial Level 1 attribution may appear at odds with the incident details.
- On LNW it was observed that a number of incidents were re-coded by the TOC (e.g. to TG - driver) and accepted, without any further supporting evidence included in the text. It is likely that this is a result of the driver's report being returned, and that relevant information on the incident is subsequently input into Bugle for the TOC's reference. However, it may be helpful for Network Rail future analysis to capture this additional information. This may be an area for Network Rail to explore with relevant TOCs as appropriate.

The conclusion from the review on each of the three Routes chosen is that, on the whole, correct attribution of delays was being observed. The issues highlighted above are, in the main, fairly small and focus more on consistency (and quality) of information provision, than around concerns over accuracy. The issues around consistency with industry documents such as EESIC differ between Routes, and the level of information provided also tends to differ.

However, the levels of accuracy observed in TDA generally appear very high, which is testament to the improvements and professionalism introduced into this area of the Industry over the past few years.

6.3 Attribution during Severe Disruption

During each of the Route visits the Reporter Team reviewed the management of delay attribution during days of severe disruption, and, in particular, the impact of the poor weather during last winter. The picture was not consistent on the three Routes visited.

Where possible, the Routes attempted to focus TDA resource to where it was most needed. On LNW, this is normally feasible, given that disruption rarely affects the whole route, given its geographical size. However, during last winter, there were days when the levels of alerts coming in were in danger of overwhelming available resources, with the potential for data being lost. To avoid this, the Route agreed with the TOCs that all delays below seven minutes would be shared 50/50.

On Kent, there were several days when the TDA staff could not cope with the number of alerts coming in, and management incidents were created, into which all the delays were placed. The option of concentrating resources on problem areas was not available, since

often the whole route was badly affected, and the current staffing levels offer no additional resource pool.

The other major problem affecting reporting was the applicable timetable. Following experience in previous winters, Western took the decision only to 'thin' the existing service, rather than plan a revised timetable. This was based on the difficulties they had in uploading the new service pattern, and subsequent difficulties with reporting. This appears to have worked well. LNW actually ran the full timetable throughout.

The experience on Kent was very different. The Route suffered numerous problems with attempts to upload new or amended timetables into the system, despite these being agreed between Network Rail and Southeastern before the 22:00 deadline. On the day, the timetable had missing schedules and duplicate schedules and as a result reporting became very difficult. For the worst days affected,

Network Rail and Southeastern spent in the order of 14 man days per day, recreating as best they could the applicable timetable, to allow PPM to be reported. This was mirrored by a similar effort in the National Performance Team. It is not possible to make a completely accurate assessment of the effect, but on the worst two or three days, PPM was probably inaccurate by around 3%, despite an enormous retrospective effort to correct it. It was also said that similar problems had occurred on Sussex, where no attempt was made to upload a new timetable, but the staff simply became overwhelmed by alerts from very early in the morning.

It is clear that, during severe disruption, the TDA processes in some parts of the network struggled to cope. It is understood that some process-related work is being undertaken to make such situations easier to deal with, but it isn't apparent that a full review has been conducted of what happened on a national basis, the full impact on the processes, and any lessons learned. It is recommended that Network Rail and ORR should consider commissioning a further, more detailed investigation of this area, including the cost/benefit trade-offs associated with the provision of improved performance data under such circumstances.

6.4 General Observations

The overall levels of accuracy of attribution, as indicated by the sample checks made, are very good. The Reporter Team did not find any Network Rail incidents which were non-compliant with the attribution rules in the DAG or any other guidance. However, the system can be exposed to considerable stress, and increased risk of data loss, at times of severe disruption, and its general resilience would be enhanced by the introduction of measures to mitigate this risk.

Any inconsistencies of attribution found were for TOC incidents which appeared to reflect differing practices within TOCs. These tended to manifest themselves around delays in running, station delays and the use of depot delay codes (701a). This does not affect Network Rail reporting, but does demonstrate a wider issue that the Delay Attribution Board may wish to consider.

The checks revealed inconsistencies in the application of EESIC, and show that Network Rail still has some way to go in driving consistency in the manner in which TRUST events are completed; however, to reiterate, this does not impact on attribution.

There is a wide and fairly comprehensive suite of TDA procedures starting with the DAG. However, Network Rail needs to give some thought as to how its suite of supporting instructions sits together. In particular, the status of IDAs needs clarification. During the audit, no-one could definitively state which ones were still live and which had been superseded by changes to other documents.

The resource levels applied to TDA are not consistent on a route by route basis. This means that, during major disruption, some routes have a deeper resource pool on which to call. The abolition of TDTL posts on Kent is an obvious example of this.

The commitment to training and briefing TDA staff is very commendable. However, the actual level of formal briefing achieved varies between Routes, and two of the teams' records showed that recent briefing levels failed to match the plan. In both cases, this was caused by vacancies in key management posts.

The levels of internal checks required is high, and many of these checks are new. However, evidence on two of the routes showed gaps in the records of all the checks taking place. Again, this was primarily a result of vacancies in key posts. In one case, this was because the post holders had joined the newly-strengthened national team.

The management of delay attribution during the worst days of the preceding winter was far from consistent. In particular, the difficulties experienced in having a fully functional "applicable timetable" in the systems caused major problems in recording delay and reliability events (some of the implications of which are discussed in Section 5 of this report). Varying practices in the handling of timetable changes for forecast severe snow days delivered very different results.

The future of TDA is currently uncertain, due to the cancellation of the IDAS project. This was a system upgrade which sought to automate much of the process and therefore reduce the number of staff required. The savings from this system formed part of the efficiency forecasts for CP4. In seeking a future solution, it is important that Network Rail protects the much-improved levels of integrity seen during the route visits.

6.5 Conclusions

The sizeable incident sample checked by the Reporter Team revealed that the attribution of Network Rail incidents is performed to a high standard, with no incidents incorrectly attributed. This confirms that the basic TRUST attribution used to underpin Network Rail reported delay is sound.

The application of EESIC to standardise the formatting of all incidents still has considerable scope for improvement.

The severe disruption caused by the weather during last winter caused considerable problems for the TDA process on a number of days. A further review should be undertaken of what happened, and of the future implications.

6.6 Recommendations

Table 6.3 contains a set of draft recommendations for the TRUST Delay Attribution process. The recommendations are numbered 2011.5.3, 2011.5.4, etc. to reflect the (end of the) current year and the Performance KPI number, and to follow on from the recommendations made for the Performance KPIs themselves. The recommendations are combined, in Section 7, with those for the other KPIs under consideration in this report, in order to provide an overview of the recommendations made in the current Quarter.

Table 6.3: TRUST Delay Attribution Recommendations

No.	Recommendation to Network Rail	Locations in Text	NR Data Champion	Due Date
2011.5.2	Network Rail should review policy towards, and the handling of, severe disruption in its widest sense, including the uploading of emergency timetables.	6.3	Stephen Draper/Paul Kelly	November 2010
2011.5.3	Network Rail should produce a full register of local attribution agreements with TOCs, and work to remove them, as part of an effort to reduce data discrepancies.	6.2.6	Paul Kelly	January 2011
2011.5.4	Network Rail should review its staffing levels for the management of delay attribution across the network to address the resource imbalance noted in some Routes, ensuring that staff are fully briefed and that briefing records are kept up-to-date, and protect the much improved levels of data integrity seen by the Reporter Team.	6.2.5	Paul Kelly	January 2011
2011.5.5	Network Rail should review the verification checks schedule to ensure the checks are appropriate, and workload is commensurate with the resources available at Route level.	6.2.3, 6.2.5	Paul Kelly	January 2011
2011.5.6	The merits of a detailed investigation of Delay Attribution under conditions of severe disruption should be considered, and a joint remit developed, as appropriate. Such a review should include consideration of the appropriate expectations of the standard of data capture on such days.	6.3	Nigel Fisher	October 2010
2011.5.7	Network Rail should review, clarify and rationalise the status and content of TDA supporting documentation, with particular attention to IDAs.	6.2.2, 6.4	Paul Kelly	January 2011

6.1 Areas for Future Review

The following is a synopsis of specific areas identified for checking at the next audit. Again, this is not meant to be an exhaustive list but simply a useful checklist of those things that require further checking as part of the audit programme.

1. Review the implementation and rollout of the National Data Quality Report.

7 Recommendations

Table 7.1 contains a set of draft recommendations (and some outstanding from 2009/10), and provides the basis for a work plan and schedule to be agreed with Network Rail. The new recommendations are numbered 2011.5.1, 2011.5.2, etc. to reflect the (end of the) current year and the Performance KPI number.

Table 7.1: Recommendations

No.	Recommendation to Network Rail	Locations in Text	NR Data Champion	Due Date
2010.5.2	Improve Document/Data Version Control <ul style="list-style-type: none"> Performance Spreadsheets Version Control 	Section 3	Stephen Draper	September 2010
2010.5.4a	Devise and agree a plan to resolve outstanding freight mileage data issues	Section 3	Stephen Draper	September 2010
2010.5.4b	Devise and agree a plan to resolve outstanding freight SRT data issues	Section 3	TBC	September 2010
2011.5.1	Network Rail should complete the formal documentation of the procedure associated with data export from PSS	5.3.2	Stephen Draper	September 2010
2011.5.2	Network Rail should review policy towards, and the handling of, severe disruption in its widest sense, including the uploading of emergency timetables.	6.3	Stephen Draper/Paul Kelly	November 2010
2011.5.3	Network Rail should produce a full register of local attribution agreements with TOCs, and work to remove them, as part of an effort to reduce data discrepancies.	6.2.6	Paul Kelly	January 2011
2011.5.4	Network Rail should review its staffing levels for the management of delay attribution across the network to address the resource imbalance noted in some Routes, ensuring that staff are fully briefed and that briefing records are kept up-to-date, and protect the much improved levels of data integrity seen by the Reporter Team.	6.2.5	Paul Kelly	January 2011

No.	Recommendation to Network Rail	Locations in Text	NR Data Champion	Due Date
2011.5.5	Network Rail should review the verification checks schedule to ensure the checks are appropriate, and workload is commensurate with the resources available at Route level.	6.2.3, 6.2.5	Paul Kelly	January 2011
2011.5.6	The merits of a detailed investigation of Delay Attribution under conditions of severe disruption should be considered, and a joint remit developed, as appropriate. Such a review should include consideration of the appropriate expectations of the standard of data capture on such days.	6.3	Nigel Fisher	October 2010
2011.5.7	Network Rail should review, clarify and rationalise the status and content of TDA supporting documentation, with particular attention to IDAs.	6.2.2, 6.4	Paul Kelly	January 2011

Appendix A

Glossary of Terms

A1 Glossary of Terms

ADS	Adjusted Data Series
Business Objects	Oracle database interface 'front end', being introduced within Network Rail as a replacement for Discoverer
CaSL	Cancellations and Significant Lateness
CCF	Control Centre of the Future
CRS	Computerised Reservation System
DAB	Delay Attribution Board
DAG	Delay Attribution Guide
DBS	Deutsche Bahn Schenker Rail (UK)
Discoverer	Oracle database interface 'front end', the use of which is being superseded within Network Rail by Business Objects
DQS	Data Quality Specialist
EESIC	Essential Elements for Standard TRUST Incident Creation
FGW	First Great Western
IDA	Internal Delay Attribution guidance notice
IDAS	Improved Delay Attribution System
IPPR	Industry Performance Period Report
ITPS	Integrated Train Planning System
LNW	London North Western Route
NTF	National Task Force
NTF-OG	National Task Force Operators Group
PDAC	Performance Data Accuracy Code
POPR	Periodic Operations Period Report
PPM	Public Performance Measure
PSS	Performance Systems Strategy
PUMPS	A database which processes information contained in TRUST and FRAME (not an acronym)
RPM	Route Performance Manager
RPMM	Route Performance Measurement Managers
SRT	Sectional Running Time
TDA	TRUST Delay Attribution
TDTL	TRUST Delay Team Leaders
TIPLOC	Timing Point Location
TOPS	Total Operations Processing System
TRUST	Train Running System TOPS

Appendix B

**PPM/CaSL Process
Spot Checks**

This Appendix provides examples of the checks of data flow carried out by the Reporter Team on Network Rail's performance data for calculating PPM and CaSL.

Flow of Data from 'PSS Data Export Spreadsheet' to 'TOC Reconciliation Spreadsheet'

The Network Rail spreadsheet 'PPM & CaSL (1) TOC-PSS.xls' contains separate worksheets for individual TOCs. The PSS cancellations data and the number of trains run are linked by formulae from the PSS export to this reconciliation spreadsheet. Checks carried out have shown that the formulae are accurately set up, as shown in the table below.

TOC	PSS Export			PPM & CaSL (1) TOC-PSS.xls			Difference	Comment
	Total Cancellation	Part Cancellation	Trains Run	Total Cancellation	Part Cancellation	Trains Run		
ScotRail	565	388	60,850	565	388	60,850	0	OK
London Midland (LSE)	93	43	10,934	93	43	10,934	0	OK
London Midland (Regional)	266	346	28,371	266	346	28,371	0	OK
London Overground	103	92	10,934	103	92	10,934	0	OK
Virgin West Coast	91	71	9,303	91	71	9,303	0	OK
Chiltern	48	47	8,950	48	47	8,950	0	OK

Source: 'PPM & CaSL Period Report by TOC Sector v6b All Day.xls', 'PPM & CaSL (1) TOC-PSS.xls'

TOCs Cancellation Data

Spot checks on the data supplied by TOCs and that which has been reported by Network Rail were carried out for the TOCs shown in the table below. The data supplied for this review covered 2011/P01. The spot checks carried out, as listed below, indicate the TOC cancellation data has been accurately inputted into the spreadsheet.

TOC	TOC Provided		Network Rail Reported		Difference	Comment	Data Source
	Total Cancellation	Part Cancellation	Total Cancellation	Part Cancellation			
ScotRail	567	383	567	383	0	OK	ScotRail bwop1011 01.pdf
London Midland (LSE)	88	31	88	31	0	OK	Lon Mid Period 1101 Bill.xls
London Midland (Regional)	260	325	260	325	0	OK	Lon Mid Period 1101 Bill.xls
London Overground	123	93	123	93	0	OK	LOROL PPM Master.xlsx
Virgin West Coast	89	72	89	72	0	OK	Virgin WC Current.xls
Chiltern	47	45	47	45	0	OK	Chiltern OFR101101.xls

Source: 'PPM & CaSL (1) TOC-PSS.xls', TOC data as indicated above

Calculation of PPM and CaSL

Values from the PSS Data Export spreadsheet are also linked by formulae to the calculation spreadsheet (PPM & CaSL (2)). The values in the table below have been checked to ensure accuracy and have been found to be robust. Checks have also been carried out to confirm the TOC cancellation data has been correctly linked to this spreadsheet from the 'PPM & CaSL (1)' spreadsheet, and found to be consistent (although details not shown in this table).

Train Numbers	PSS Export						PPM & CaSL Calculation						Difference					
	('PPM & CaSL Period Report by TOC Sector v6b All Day.xls')						('PPM & CaSL (2) Consolidation.xls')											
	ScotRail	London Midland (LSE)	London Midland (Rgnl)	London Overgrd	Virgin West Coast	Chiltern	ScotRail	London Midland (LSE)	London Midland (Rgnl)	London Overgrd	Virgin West Coast	Chiltern	ScotRail	London Midland (LSE)	London Midland (Rgnl)	London Overgrd	Virgin West Coast	Chiltern
PPM Passes	58,064	7,376	26,897	10,704	8,434	8,661	58,064	7,376	26,897	10,704	8,434	8,661	0	0	0	0	0	0
Within 15	60,488	7,772	28,126	10,897	8,763	8,878	60,488	7,772	28,126	10,897	8,763	8,878	0	0	0	0	0	0
15-20 Late	162	47	114	19	211	25	162	47	114	19	211	25	0	0	0	0	0	0
20-30 Late	112	38	87	15	172	24	112	38	87	15	172	24	0	0	0	0	0	0
30-61 Late	75	24	41	3	135	21	75	24	41	3	135	21	0	0	0	0	0	0
61-120 Late	13	1	3	0	22	2	13	1	3	0	22	2	0	0	0	0	0	0

Source: 'PPM & CaSL Period Report by TOC Sector v6b All Day.xls', 'PPM & CaSL (2) Consolidation.xls'

Calculation of Sector Level PPM/CaSL

The calculation spreadsheet is set up with a 'Lookup' worksheet which contains a list of all TOCs and the relevant Sector they operate within (and for those TOCs which operate in more than one sector, these are explicitly separated, e.g. London Midland LSE and London Midland Regional).

These values are then transposed onto a worksheet called 'Template'. The TOC values for each of the measures, as summarised in each of the individual measures calculation sheets, are then multiplied with the values on the 'Template' sheet to obtain the aggregated sector values. The calculation also includes input from the sheet called 'Timelines' which takes into account the validity of franchise dates.

Auditing of the process of amalgamating TOC figures to produce sector results focussed on two sample measures, 'within 5' and 'total Cancellations'.

Firstly, the values from individual TOC sheets were checked to ensure they had accurately been fed through to the 'individual measures' worksheets. These checks are summarised in the table below for the same five sample TOCs, which showed no concerns.

TOC	From Individual TOC Worksheet		To Measures Worksheet		Difference	Comment
	Total Cancellation	Within 5	Total Cancellation	Within 5		
ScotRail	567	58,064	567	58,064	0	OK
London Midland (LSE)	88	7,376	88	7,376	0	OK
London Midland (Regional)	260	26,897	260	26,897	0	OK
London Overground	123	10,704	123	10,704	0	OK
Virgin West Coast	89	7,757	89	7,757	0	OK
Chiltern	47	8,661	47	8,661	0	OK

The values from the two sample measures were then aggregated in the table below and compared with the Network Rail calculated values, which confirms that there were no errors observed in the Network Rail calculation process.

TOC	Long Distance	Regional	London & South East	Within 5 Total	Within 5 Long Distance	Within 5 Regional	Within 5 London & South East	Cancellations Total	Cancellations Long Distance	Cancellations Regional	Cancellations London & South East
Arriva Trains Wales		1		26,488		26,488		40		40	
c2c			1	9,883			9,883	31			31
Chiltern			1	8,661			8,661	47			47
Arriva Cross Country	1			7,136	7,136			185	185		
East Midlands (LD)	1			5,556	5,556			15	15		
East Midlands (Reg)		1		6,976		6,976		31		31	
First Capital Connect			1	28,765			28,765	325			325
First Great Western (LD)	1			4,868	4,868			42	42		
First Great Western (LSE)			1	22,275			22,275	172			172
First Great Western (Reg)		1		13,674		13,674		138		138	
East Coast	1			2,903	2,903			41	41		
Grand Central	1			180	180			4	4		
Heathrow Express			1	4,293			4,293	127			127
Hull Trains	1			321	321			4	4		
London Overground			1	10,704			10,704	103			103
London Midland (LSE)			1	7,376			7,376	88			88
London Midland (Reg)		1		26,897		26,897		260		260	
MerseyRail		1		16,755		16,755		72		72	
Northern Rail		1		66,371		66,371		507		507	
NX East Anglia (LSE)			1	44,010			44,010	416			416
NX East Anglia (LD)	1			2,350	2,350			19	19		
First ScotRail				58,064				565			
Southeastern			1	52,078			52,078	380			380
Southern			1	62,495			62,495	320			320
South West Trains			1	47,114			47,114	120			120
Island Line			1	2,037			2,037	-			
First Transpennine Express	1			7,879	7,879			38	38		
Virgin Trains	1			7,757	7,757			89	89		
Wrexham & Shropshire	1			174	174			4	4		
Total					39,124	157,161	299,691		441	1,048	2,129
Network Rail Reported					39,124	157,161	299,691		441	1,048	2,129
Difference					0	0	0	0	0	0	0
Comment					OK	OK	OK	OK	OK	OK	OK

Transfer of Data into Industry Reports

The flow of data from the PPM & CaSL spreadsheets into the spreadsheets which feed the various industry reports (POPR and IPPR) has been checked for a sample of TOCs. This data all feeds from the historical trend spreadsheet 'PPM & CaSL (3)'.

The reports which were provided and so checked against for this audit were the POPR from 2010/P13 and the IPPR from 2011/P01, and the details of the spot checks are shown in the table below. No discrepancies were observed.

TOC	Results			Industry Reports			Difference	Comment
	PPM	PPM MAA	CaSL	PPM (POPR)	PPM MAA (POPR)	CaSL (IPPR)		
ScotRail	92.5%	90.6%	1.7%	92.5%	90.6%	1.7%	0	OK
London Midland	92.5%	89.8%	2.1%	92.5%	89.8%	2.1%	0	OK
London Overground	96.4%	93.2%	1.8%	96.4%	93.2%	1.8%	0	OK
Virgin West Coast	91.0%	84.6%	3.4%	91.0%	84.6%	3.4%	0	OK
Chiltern	96.2%	95.2%	1.3%	96.2%	95.2%	1.3%	0	OK

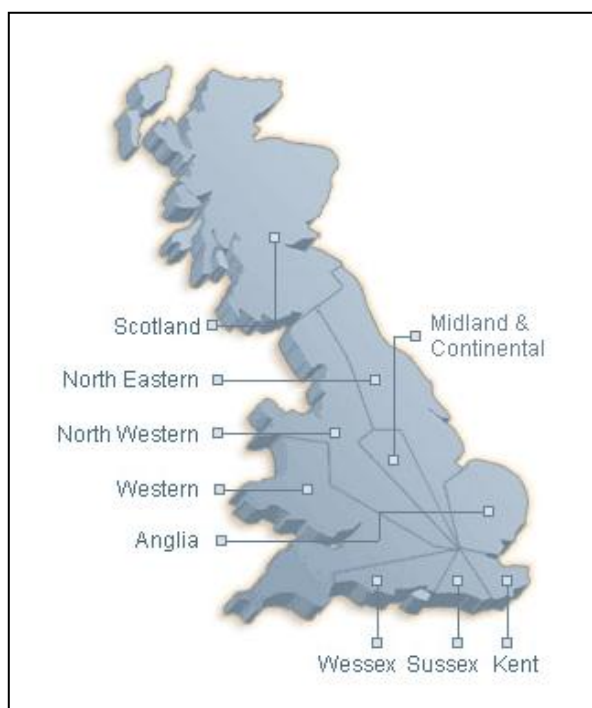
Appendix C

Trust Delay Attribution

C1 TRUST Delay Attribution (TDA)

C1.1 Introduction

TRUST data was examined at the three Routes visited; Western, Kent and LNW. These Routes cover a significant part of the country as outlined in the Network Rail Route map below, and accounted for nearly 50% of all incidents in 2011/P01.

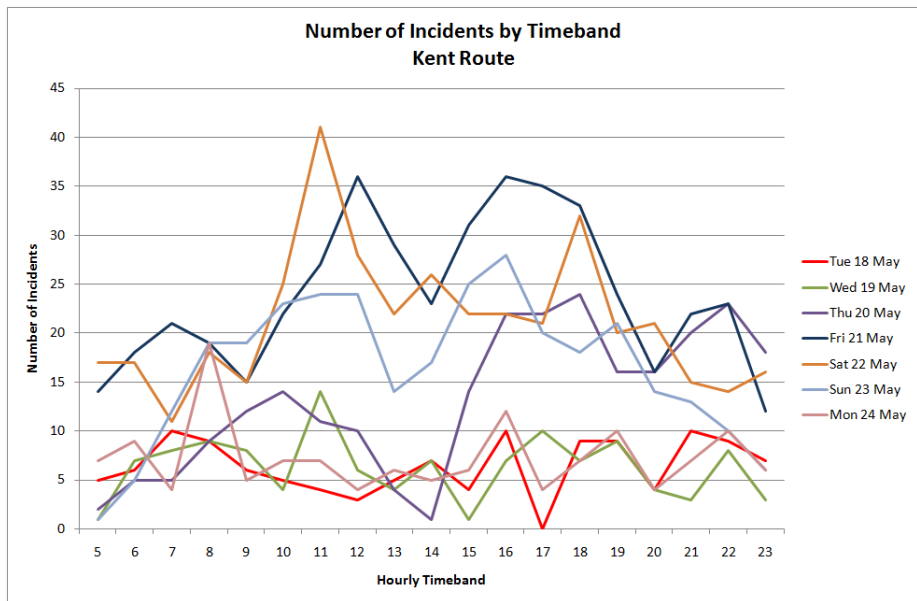
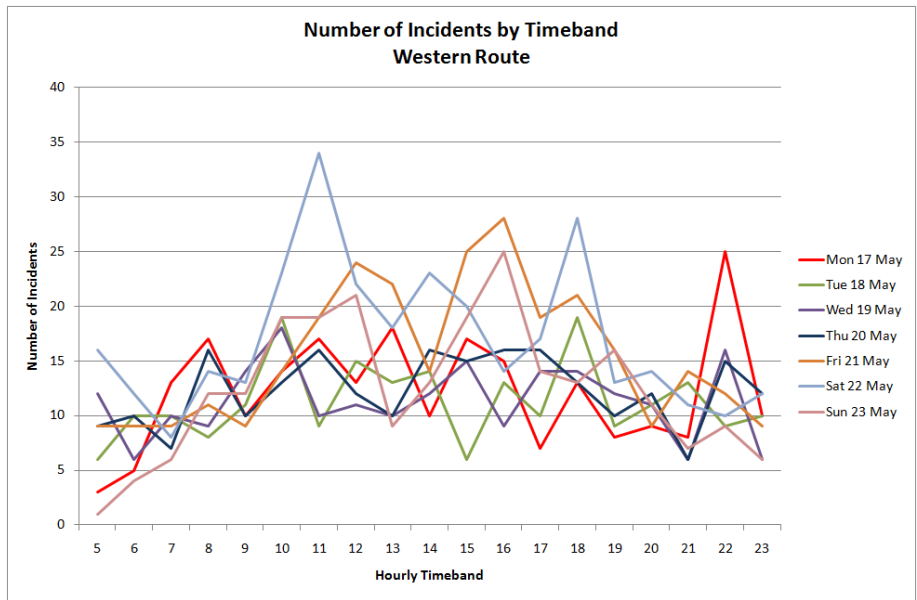


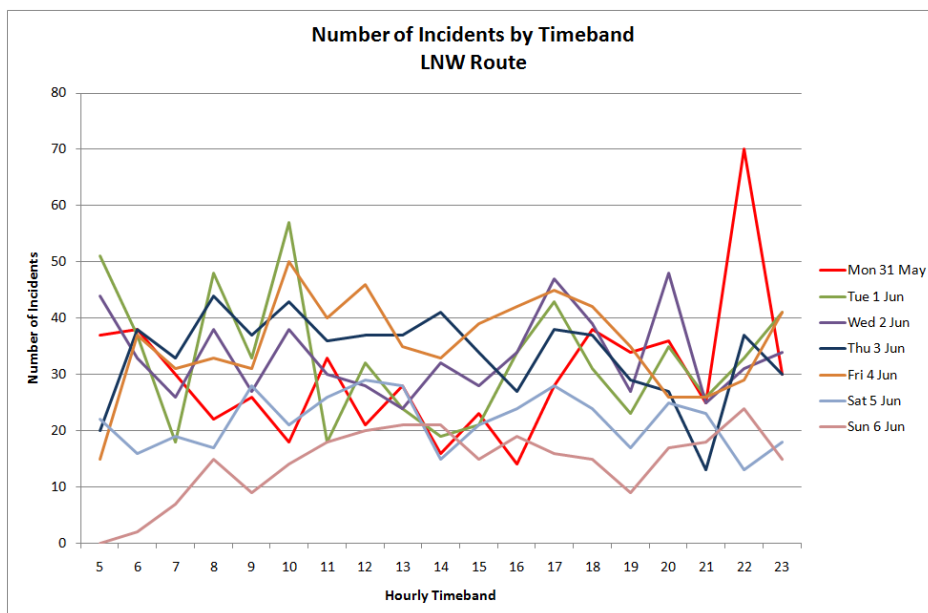
Route	Incidents	
	Number	Percent
Anglia	5,240	8%
Kent	4,548	7%
London North Eastern	12,779	19%
London North Western	19,972	30%
Midland & Continental	3,223	5%
Scotland	6,564	10%
Sussex	3,677	5%
Wessex	3,309	5%
Western	8,329	12%
TOTAL	67,641	100%

C1.2 Sampling Approach

On each Route, six different time periods (two-hour periods for Kent and Western, one hour for LNW) were sampled. These time periods were selected over the preceding seven days to the visits, since this is the maximum amount of data which is still available to review in the TDA system. The sampling was aimed at providing a suitable coverage of shifts and differing levels of incidents (to reflect busyness of TDA Level 1 staff). For each Route, the number of incidents by hour over the seven days was examined to understand busy and quiet times, and to ensure a suitable mix was chosen for sampling.

These distributions are shown in the three charts below for each of the Routes.





These charts show that there were generally no ‘bad’ periods, and so the sampling was chosen relatively randomly, ensuring that a good mix of days and times of day were chosen. On each Route, one of the chosen samples was aimed to capture a busier time (e.g. on Western, Saturday between 1100 and 1200). The sampling periods chosen are highlighted in the table below along with the number of incidents (excluding ‘planned’ incidents such as TSRs¹¹) in each sample period, and thus the proportion of incidents during the week which were examined on each Route.

All incidents within the time periods selected were reviewed, and the table below indicates that these represent around 10% of all non-planned incidents on Western and Kent Routes and 5% of all non-planned incidents on LNW Route (while a similar number of incidents were examined, the proportion is lower due to the higher overall volume of incidents).

Western		
Sample	Period	Incidents
1	Monday 17 May 1200-1400	31
2	Tuesday 18 May 0800-1000	19
3	Wednesday 19 May 2100-2300	22
4	Thursday 20 May 1400-1600	31
5	Friday 21 May 1600-1800	47
6	Saturday 22 May 1000-1200	57
Total Incidents Sampled		207
Total Non-Planned Incidents in Week		2,038
Proportion of Non-Planned Incidents Sampled		10.2%

Kent		
Sample	Period	Incidents
1	Wednesday 19th May, 0700-0900	17
2	Thursday 20th May, 1400-1600	15
3	Friday 21st May, 1600-1800	71
4	Saturday 22nd May, 1000-1200	66
5	Sunday 23rd May, 1200-1400	38
6	Monday 24th May, 1900-2100	14
Total Incidents Sampled		221

¹¹ Excluded all ‘P’ incidents

Total Non-Planned Incidents in Week	2,076
Proportion of Non-Planned Incidents Sampled	10.6%

LNW		
Sample	Period	Incidents
1	Tuesday 1 June, 0800-0900	48
2	Wednesday 2 June, 1200-1300	28
3	Thursday 3 June, 1600-1700	27
4	Friday 4 June, 2100-2200	26
5	Saturday 5 June, 1000-1100	21
6	Monday 7 June, 1800-1900	40
Total Incidents Sampled		190
Total Non-Planned Incidents in Week		4,169
Proportion of Non-Planned Incidents Sampled		4.6%

C1.3 Accuracy of Delay Attribution

In general on each Route, the level of accuracy of delay attribution observed is very good. A small handful of minor issues were observed which are outlined in more detail below.

TOC Policy on Attribution

On each Route, a number of examples were observed where it appears that different TOCs have different policy as to how to attribute certain delays. While this is internal to the TOCs, this can cause inconsistencies of attribution when comparing between TOCs. The most common issues appears to be around whether certain types of delay are categorised as “T” codes (traincrew, so 701C) or “R” codes (‘retail’, so 701E). Some examples are provided below.

- Western 21/5/10 Incident Number: 27302
 - Attributed as T2 (Delay at Unstaffed Station to non DOO train)
 - Delay acknowledged in text as large number of passengers heading to weekend festival at Bangor.
 - Therefore this would be more appropriately attributed to R7 (Station delays due to special events, eg sports fixtures). Note, this is the same KPI (701E)
 - Incident Text:

```
DESCRIPTION*** 21-MAY-2010 17:12:00 *** QDP5294 ***
*** 21/05/10 17:12 #QDP5294 *** CREATED ID14 TUR TO BNG. SPOKE TO BNG EARLIER WHO ADVISE NSD AND NO THING REPORTED. THANKS.
RESOLUTION*** 21-MAY-2010 17:35:00 *** HLEGESF ***
* 21/05/10 17:35 #HLEGESF * ACCEPTED BY USER S = ROUTE KNOWLEDGE, HEAVY PAX LOADINGS C = REPORTS OF LARGE NUMBER OF PAX HEADING FOR BANGOR TO ATTEND THE BIG WEEKEND FESTIVAL A = NIL R = NIL * 21/05/10 17:35 #HLEGESF * CODE CHANGED RESPONSIBLE MANAGER CODE UPDATED FROM THLA TO THLF REASON CODE UPDATED FROM T0 TO T2 EQUIPMENT NUMBER UPDATED FROM ----- TO CH0823
```

- Western 20/5/10 Incident Number: 24422
 - Attributed as T2 (Delay at Unstaffed Station to non DOO train)
 - Delay acknowledged in text as due to request stop
 - Such delay not explicitly in the DAG and could also be assigned to RB (passengers joining/alighting). Note, this is the same KPI
 - Incident Text:

```
DESCRIPTION*** 20-MAY-2010 14:34:00 *** QDPCF05 ***
*** 20/05/10 14:34 #QDPCF05 *** CREATED 2E17 PAX LOADINGS TO WTL AS ADVISED BY ATW L2
RESOLUTION*** 20-MAY-2010 14:38:00 *** HLEGESF ***
* 20/05/10 14:38 #HLEGESF * ACCEPTED BY USER S = CONDUCTOR CALLED DELAY LINE TO REPORT..... C = HEAVY PAX LOADINGS. TRAIN CALLED REQUEST STOPS A = NIL R = NIL
RESOLUTION*** 20-MAY-2010 14:37:00 *** HLEGESF ***
* 20/05/10 14:37 #HLEGESF * CODE CHANGED RESPONSIBLE MANAGER CODE UPDATED FROM RHLA TO THLM REASON CODE UPDATED FROM RB TO T2 EQUIPMENT NUMBER UPDATED FROM ----- TO CN1202
```

- LNW 5/6/10 Incident Number: 62558
 - Attributed as T2 (Delay at Unstaffed Station to non DOO train)
 - Delay due to wheelchair space full.

- Western 17/5/10 Incident Number: 16790
 - Attributed to TH (Senior Conductor/Train Manager)
 - Delay due to wheelchair space full
 - Comparing this incident with the one above for LNW shows a different attribution for effectively the same incident type (which fall into different KPIs)

FOC Policy on Attribution

On each Route, it was noted that for certain incidents which are due to a FOC (generally relating to access/exit from yards), it tends to be the FOC which ultimately prescribes the delay code to which the incident is attributed, although the incident text may not always give any evidence of investigation. Examples are provided below.

- Western 18/5/10 Incident Number: 19168
 - Attributed to AA (Waiting Terminal/Yard Acceptance)
- Western 20/5/10 Incident Number: 24480
 - Attributed to AA (Waiting Terminal/Yard Acceptance)
- LNW 4/6/10 Incident Number: 61607
 - Attributed to FZ (Other Freight).
 - Text indicates likely to be caused by late arrival due to yard congestion, which would suggest AA would be more appropriate.

Set Swaps for Planned Maintenance

There appeared to be some inconsistency in how delays due to set swaps are coded, specifically when for planned maintenance. There is limited guidance in the DAG and similar examples have been coded differently. Examples are provided below, all of which from the Incident Text appear to be driven by set swaps, yet coded differently:

- Western 21/05/10 Incident Number: 27155 - Coded as MZ (701D)

```
DESCRIPTION*** 21-MAY-2010 16:11:00 *** QDP0335 ***
*** 21/05/10 16:11 #QDP0335 *** CREATED NWR TV TRC ADVISES DUE TO FLEET REQUIREMENTS ON OC40 1G47 FORMED OFF 1L60 OUT OF FLT9 VICE 1. AS A RESULT
1G47 RAN DRL T O ACTON WEST WHERE IT CROSSED ONTO THE DML DELAYING 1P53.
RESOLUTION*** 21-MAY-2010 17:48:00 *** EFE2046 ***
* 21/05/10 17:48 #EFE2046 * ACCEPTED BY USER FGW MAINTENANCE PLANNER PT REPORTS 43143 REQUIRED IN SWANSEA FOR PLANNED WORK FGW LOG
REPORTS OC40 SET SWAP PLANNED AT P.A.D.
RESOLUTION*** 21-MAY-2010 17:46:00 *** EFE2046 ***
* 21/05/10 17:46 #EFE2046 * CODE CHANGED RESPONSIBLE MANAGER CODE UPDATED FROM TEFA TO MEF7 REASON CODE UPDATED FROM TB TO MZ
EQUIPMENT NUMBER UPDATED FROM OC40 TO 43143
```

- Western 21/05/10 Incident Number: 27270 - Coded as MU (701A)

```
DESCRIPTION*** 21-MAY-2010 16:54:00 *** QDP4175 ***
*** 21/05/10 16:54 #QDP4175 *** CREATED 5C21 LATE START BRL. AFTER 150219 REQUIRED BACK AT SPM. AS ADVSD BY FGW SWINDON TSC.
DESCRIPTION*** 22-MAY-2010 08:24:00 *** QDP4396 ***
*** 22/05/10 08:24 #QDP4396 *** AMENDED RE DISPUTE: TITLE AMENDED AS PER FGW REQUEST ** RESPONSIBLE MANAGER CODE UPDATED FROM MEFQ TO
DESCRIPTION*** 22-MAY-2010 08:25:00 *** QDP4396 ***
*** 22/05/10 08:25 #QDP4396 *** AMENDED ** RESPONSIBLE MANAGER CODE UPDATED FROM OQDB TO MEFQ
RESOLUTION*** 24-MAY-2010 11:17:00 *** EFESW06 ***
* 24/05/10 11:17 #EFESW06 * ACCEPTED BY USER * 24/05/10 11:17 #EFESW06 * CODE CHANGED RESPONSIBLE MANAGER CODE UPDATED FROM MEFQ TO MEF3
REASON CODE UPDATED FROM M8 TO MU
RESOLUTION*** 22-MAY-2010 08:27:00 *** EFC0240 ***
* 22/05/10 08:27 #EFC0240 * ACCEPTED BY USER
RESOLUTION*** 21-MAY-2010 18:02:00 *** EFC0241 ***
* 21/05/10 18:02 #EFC0241 * DISPUTED PARTIAL ACCEPTANCE WEST TSC ADVISES 150219 REQUIRED BACK ON SPM TONIGHT FOR MAINTENANCE SWAPPED WITH
150263 TO ALLOW THIS. PLEASE AMEND TITLE TO READ 5C21 UNIT REQ ON SPM. THANKS * 21/05/10 18:02 #EFC0241 * CODE CHANGED RESPONSIBLE MANAGER
CODE UPDATED FROM MEFA TO MEFQ REASON CODE UPDATED FROM MS TO M8
```

- Western 17/05/10 Incident Number: 19772 - Coded as MU (701A)

```
DESCRIPTION*** 18-MAY-2010 15:56:00 *** QDP0544 ***
*** 18/05/10 15:56 #QDP0544 *** CREATED 2L55 SET SWAP CARDIFF CENTRAL AS REQUESTED IN DISPUTE OF INCIDENT 016856. AN ADDITIONAL SET CAME OFF
CARDIFF CANTON INT O PLATFORM 4. TA.
RESOLUTION*** 18-MAY-2010 19:12:00 *** HLE0173 ***
* 18/05/10 19:12 #HLE0173 * ACCEPTED BY USER S-UNIT DESK C-REQUIRED FOR TYRE TURNING AT CANTON A R-CODE TO DEPOT AS 158823 WAS ON CANTON ALL
WEEK * 18/05/10 19:12 #HLE0173 * CODE CHANGED RESPONSIBLE MANAGER CODE UPDATED FROM MHLA TO MHLT REASON CODE UPDATED FROM MS TO MU
```

- LNW 1/6/10 Incident Number: 51577 - Coded as MS (701A)

```
DESCRIPTION*** 01-JUN-2010 08:08:00 *** QRP8227 ***
*** 01/06/10 08:08 #QRP8227 *** CREATED TIME LOST TO WALKDEN. TSID CHECKED AND SHOWS NO CONFLICTING MOVEMENTS CCF CHECKED WHERE AVAILABLE
AND SHOWS NO CONFLICTING MOVEMENTS SIGNALLER(S) BELOW ADVISED THAT THIS SERVICE RECEIVED NO ADVERSE SIGNALS AND KNOWS OF NO OTHER
CAUSES OF DELAY WHEN ASKED ALL TSR'S RESR'S ACCOUNTED FOR NO KNOWN INFRASTRUCTURE PROBLEMS CAUSING DELAY TO THIS SERVICE COULD TOC
ASSIST WITH DELAY PLEASE? THANKS SIGNALLER(S) ASKED: WALKDEN ATHERTON AND CROW NEST IN TIME OF CONTACT WITH BOX(ES): 08:05 TRACTION
NUMBER: 142048/150143
DESCRIPTION*** 01-JUN-2010 08:11:00 *** QRP8227 ***
*** 01/06/10 08:11 #QRP8227 *** AMENDED WALKDEN SIGNALLER FURTHER REPORTED IJ01 STOPPED ADDITIONALLY AT WALKDEN STATION.
RESOLUTION*** 01-JUN-2010 18:28:00 *** EDWE027 ***
* 01/06/10 18:28 #EDWE027 * CODE CHANGED EQUIPMENT NUMBER UPDATED FROM 142048 TO NH526
RESOLUTION*** 01-JUN-2010 18:27:00 *** EDWE027 ***
* 01/06/10 18:27 #EDWE027 * CODE CHANGED REASON CODE UPDATED FROM MU TO MS
RESOLUTION*** 01-JUN-2010 11:23:00 *** EDWE020 ***
* 01/06/10 11:23 #EDWE020 * ACCEPTED BY USER IP23 ACC
RESOLUTION*** 01-JUN-2010 11:17:00 *** EDWE020 ***
* 01/06/10 11:17 #EDWE020 * ACCEPTED BY USER 2A95 ACC
RESOLUTION*** 01-JUN-2010 10:42:00 *** EDWE020 ***
* 01/06/10 10:42 #EDWE020 * ACCEPTED BY USER
RESOLUTION*** 01-JUN-2010 10:25:00 *** EDWE020 ***
* 01/06/10 10:25 #EDWE020 * ACCEPTED BY USER 2N58 ACC
RESOLUTION*** 01-JUN-2010 10:10:00 *** EDWE020 ***
* 01/06/10 10:10 #EDWE020 * ACCEPTED BY USER 2J72 ACC
RESOLUTION*** 01-JUN-2010 09:32:00 *** EDWE020 ***
* 01/06/10 09:32 #EDWE020 * ACCEPTED BY USER 2A06 ACC
RESOLUTION*** 01-JUN-2010 09:28:00 *** EDWE020 ***
* 01/06/10 09:28 #EDWE020 * ACCEPTED BY USER 2F85 ACC
RESOLUTION*** 01-JUN-2010 08:38:00 *** EDWE020 ***
* 01/06/10 08:38 #EDWE020 * ACCEPTED BY USER 1N55 ACC
RESOLUTION*** 01-JUN-2010 08:19:00 *** EDWE020 ***
* 01/06/10 08:19 #EDWE020 * ACCEPTED BY USER IJ01 SSO VICE 2W62 SHORT FORMED DUE TO NEWTON HEATH UNIT SHORTAGE
RESOLUTION*** 01-JUN-2010 08:18:00 *** EDWE020 ***
* 01/06/10 08:18 #EDWE020 * CODE CHANGED RESPONSIBLE MANAGER CODE UPDATED FROM TEDA TO MEDG REASON CODE UPDATED FROM TO TO MU
```

- LNW 1/6/10 Incident Number: 51667 - Coded as MZ (701D)

```
DESCRIPTION*** 01-JUN-2010 08:55:00 *** QRPE446 ***
*** 01/06/10 08:55 #QRPE446 *** CREATED IR15 STOCK SWAP EUS. BOOKED PL5 WENT INTO 18 AS ADVISED BY SPM WMB DUE TO A STOCK SWAP
DESCRIPTION*** 01-JUN-2010 11:39:00 *** QRPE446 ***
*** 01/06/10 11:39 #QRPE446 *** AMENDED SPM STATED PUT INTO 18 AT TOC REQUEST
DESCRIPTION*** 01-JUN-2010 11:47:00 *** QRPE446 ***
*** 01/06/10 11:47 #QRPE446 *** AMENDED SPM STATED UNIT REPLATFORMED DUE TO UNIT SWAP
DESCRIPTION*** 01-JUN-2010 11:48:00 *** QRPE446 ***
*** 01/06/10 11:48 #QRPE446 *** AMENDED ON IR18
DESCRIPTION*** 01-JUN-2010 11:49:00 *** QRPE446 ***
*** 01/06/10 11:49 #QRPE446 *** AMENDED ** RESPONSIBLE MANAGER CODE UPDATED FROM MHFA TO OGRE *** 01/06/10 11:49 #QRPE446 *** AMENDED **
RESPONSIBLE MANAGER CODE UPDATED FROM OGRE TO MHFA
DESCRIPTION*** 02-JUN-2010 07:51:00 *** QRPE446 ***
*** 02/06/10 07:51 #QRPE446 *** AMENDED INFO AS PER TELEPHONE CONV WITH SPM WEMBLEY
RESOLUTION*** 02-JUN-2010 09:00:00 *** HFE2944 ***
* 02/06/10 09:00 #HFE2944 * CODE CHANGED RESPONSIBLE MANAGER CODE UPDATED FROM RHF5 TO MHF8 REASON CODE UPDATED FROM R2 TO MZ * 02/06/10
09:00 #HFE2944 * ACCEPTED BY USER ROOT CAUSE OF SET SWAP WAS TO GET 390032 BACK TO OXLEY EARLY FOR MODS
RESOLUTION*** 02-JUN-2010 08:54:00 *** HFE2944 ***
* 02/06/10 08:54 #HFE2944 * CODE CHANGED RESPONSIBLE MANAGER CODE UPDATED FROM MHFA TO RHF5 REASON CODE UPDATED FROM MS TO R2 * 02/06/10
08:54 #HFE2944 * DISPUTED INCORRECT MANAGER CODE PENDING FURTHER INVESTIGATION
RESOLUTION*** 01-JUN-2010 18:32:00 *** HFE2798 ***
* 01/06/10 18:32 #HFE2798 * DISPUTED INCORRECT DELAY CODE IR18 SET SHOULD NOT DELAY IR15 AND IR16 AS THEY ARE EARLIER TRAINS.
RESOLUTION*** 01-JUN-2010 11:37:00 *** HFE2128 ***
* 01/06/10 11:37 #HFE2128 * DISPUTED INCORRECT DELAY CODE IR15 WAS NOT INVOLVED IN A SET SWAP EUSTON RADIO ROOM ADVISED BOX HAD TOLD THEM
WHICH PLATFORMS TRAINS WERE ARRIVING INTO..
```

Loading/Unloading Bicycles

The sampling indicated that there could be inconsistency in when Code RR (Loading reserved bicycles presented late) and Code RS (Loading unreserved bicycles) are used, specifically whether the fact that a bicycle has been reserved is information that is likely to have been captured for attribution. Two incidents were observed where these codes were used for initial attribution (this indicating the potential inconsistency at Level 1).

- Western 21/5/10 Incident Number: 27270 – Initially coded as RS


```
DESCRIPTION*** 21-MAY-2010 16:27:00 *** QDP0335 ***
*** 21/05/10 16:27 #QDP0335 *** CREATED IF24 OVERTIME WMN: -CCF SHOWS CLEAR RUN WITH NO CONFLICTING TRAFFIC. -WSB PANEL ADVISE (1626HRS) NSD AND
NO REPORTS FROM T-CREW. PLEASE COULD FGW ADVISE THANK YOU.
DESCRIPTION*** 21-MAY-2010 16:49:00 *** QDP0724 ***
*** 21/05/10 16:49 #QDP0724 *** AMENDED ** RESPONSIBLE MANAGER CODE UPDATED FROM REFV TO QGDV *** 21/05/10 16:49 #QDP0724 *** AMENDED **
RESPONSIBLE MANAGER CODE UPDATED FROM QGDV TO REFV
RESOLUTION*** 24-MAY-2010 11:11:00 *** EFESW06 ***
* 24/05/10 11:11 #EFESW06 * ACCEPTED BY USER RECODED * 24/05/10 11:11 #EFESW06 * CODE CHANGED RESPONSIBLE MANAGER CODE UPDATED FROM REFV TO
REF9
RESOLUTION*** 21-MAY-2010 16:50:00 *** EFC0241 ***
* 21/05/10 16:50 #EFC0241 * ACCEPTED BY USER TITLED AS REQ. THANKS
RESOLUTION*** 21-MAY-2010 16:38:00 *** EFC0241 ***
* 21/05/10 16:38 #EFC0241 * DISPUTED PARTIAL ACCEPTANCE CDR CT FRC1316 ADVISES PAX LOADING BIKE DELAY FINDING ROOM TO ACCOMMODATE. PLEASE
AMEND TITLE TO READ IF24 BIKE AT WMN. THANKS
RESOLUTION*** 21-MAY-2010 16:36:00 *** EFC0241 ***
* 21/05/10 16:36 #EFC0241 * CODE CHANGED RESPONSIBLE MANAGER CODE UPDATED FROM REFA TO REFV REASON CODE UPDATED FROM RZ TO RS
```

- LNW 7/6/10 Incident Number 67213 – initially coded as RR

```
* 07/06/10 19:53 JHFE2662 * CODE CHANGED
RESPONSIBLE MANAGER CODE UPDATED FROM RHFA TO THFV
REASON CODE UPDATED FROM RR TO TH
* 07/06/10 19:53 JHFE2662 * ACCEPTED BY USER
WSS621 TURN FORGOT TO REMOVE BIKE AT RUGBY
```

Incidents due to Animals

The DAG provides a flow chart to assist with attribution of incidents caused by animals on the line (Flow chart 4.4.3). However, one example was picked up in the Western Route where, from the information available, the incident could have potentially have been attributed as either I8 (Animal Strike/Incursion within the control of Network Rail) or X8 (Animal Strike/Incursion not within the control of Network Rail). The incident was attributed to I8, but the National Performance Support Analyst} interpreted the information could mean it could potentially be attributed to X8, notably since it was not obvious how the animals got to be on the line. Note both codes relate to the same KPI.

- Western 19/5/10 Incident Number: 22968

```
DESCRIPTION*** 19-MAY-2010 22:21:00 *** QDP0065 ***
*** 19/05/10 22:21 #QDP0065 *** CREATED FROM NEWPORT PSB LYDNEY XING KEEPER REPORTED A HERD OF COWS ON THE LINE AT THE XING. 2G72 STOPPED BY
NRM. AWAITING FURTHER UPDATE. *** 19/05/10 22:21 #QDP0065 *** AMENDED
DESCRIPTION*** 19-MAY-2010 22:22:00 *** QDP0065 ***
*** 19/05/10 22:22 #QDP0065 *** AMENDED ** RESPONSIBLE MANAGER CODE UPDATED FROM IQDC TO XQDC ** REASON CODE UPDATED FROM I8 TO X8
```

Lack of Evidence of Investigation

A number of examples were observed where the initial incident report provided by the Level 1 TDA staff is identical to the incident description. This indicates no evidence of any further investigation made into the incident, and therefore no evidence that the initial attribution is correct – especially a potential issue when such delays are simply accepted in the system. Of the Routes visited, it was noticeable that this was more prevalent on GW compared to the other Routes (note the numbers below exclude freight cancellations). Example incidents from each Route as listed below:

- Western: 16 instances (8% of sample of 207 incidents)
- LNW: 8 instances (4% of sample of 190 incidents)
- Kent: 0 instances (0% of sample of 221 incidents)
- Western 17/5/10 Incident Number: 16894

```
DESCRIPTION*** 17-MAY-2010 14:02:00 *** QDP0065 ***
*** 17/05/10 14:02 #QDP0065 *** CREATED 6A83 L/S MACHEN
```

- Western 19/5/10 Incident Number: 21726

```
DESCRIPTION*** 19-MAY-2010 11:13:00 *** QDP5305 ***
*** 19/05/10 11:13 #QDP5305 *** CREATED 6Z21 WAITING ACC CARDFDKS. THANKS
```

- LNW 5/6/10 Incident Number: 62587

DESCRIPTION*** 05-JUN-2010 10:51:00 *** QRP2900 ***
 *** 05/06/10 10:51 #QRP2900 *** CREATED 2F85 FITTERS MCV
 RESOLUTION*** 05-JUN-2010 11:01:00 *** EDWE020 ***
 * 05/06/10 11:01 #EDWE020 * CODE CHANGED RESPONSIBLE MANAGER CODE UPDATED FROM MEDA TO MEDI * 05/06/10 11:01 #EDWE020 * ACCEPTED BY USER
 FACING OUT

- LNW 2/6/10 Incident Number: 54634

DESCRIPTION*** 02-JUN-2010 12:18:00 *** QRP0472 ***
 *** 02/06/10 12:18 #QRP0472 *** CREATED 6M96 WLC 1K12 XLX 1K12 RUNNING LATE WITH NAD

Coding to ZZ (Unexplained Loss in Running)

On LNW it was observed that a relatively high number of small incidents of delay were coded to ZZ (mostly sub threshold delay incidents). 18 such incidents were observed which represents 9% of all incidents sampled. However, this is part of the commercial agreements that the Route has with the TOCs surrounding certain types of delay (e.g. sub threshold delays). In contrast, there were just 6 incidents (3%) observed on Western which were coded to ZZ. Examples are shown below:

- LNW 1/6/10 Incident Number: 51600

DESCRIPTION*** 01-JUN-2010 08:22:00 *** QRP4311 ***
 *** 01/06/10 08:22 #QRP4311 *** CREATED 1L00 FOL LATE 2U18 KNN BHM 2U18 RUNNING 3 LATE AT SELLY OAK AND NEW STREET WITH NO ATTRIBUTABLE DELAYS
 DELAYING THE FOLLOWING 1L00 IN SECTION. 2U18 T LATE START AT LOB DUE TO LATE INWARD 2N13 2 LATE ALSO NO ATTRIBUTABLE DELAY. CODED ZZ

- LNW 1/6/10 Incident Number: 51664

DESCRIPTION*** 01-JUN-2010 08:53:00 *** QRP9109 ***
 *** 01/06/10 08:53 #QRP9109 *** CREATED 2G03 LOSS IN RUNNING BELOW THRESHOLD MEC ASKED TO INVESTIGATE.
 DESCRIPTION*** 01-JUN-2010 10:53:00 *** QRP9109 ***
 *** 01/06/10 10:53 #QRP9109 *** AMENDED MEC ADVISES NO TRAINCREW DELAY ** RESPONSIBLE MANAGER CODE UPDATED FROM THEA TO OQRL ** REASON CODE
 UPDATED FROM TO TO ZZ

- Western 19/5/10 Incident Number: 21637

DESCRIPTION*** 19-MAY-2010 10:38:00 *** QDP0047 ***
 *** 19/05/10 10:38 #QDP0047 *** CREATED 1A81 (ST) LIR TO PAR TRAIN LOSING ODD MINS IN SECTIONS BELOW THRESHOLD.

C1.4 Compliance with EESIC

A common theme across all Routes is that the adoption of EESIC is still work-in-progress with a number of non-compliances observed. The level of non-compliance across Routes will be captured in the National Data Quality Reports going forward. The main types of issues which were identified from the sampling process are outlined below with examples. It should be noted that these issues affect the consistency and quality of data captured, but will have no bearing on the accuracy of attribution.

Inconsistency in mandated use of CRS code / Tiploc in Incident description

- Western 21/5/10 Incident Number: 21716 –Tiploc should be used

4F52 LATE START USKMTHPWR

- Western 21/5/10 Incident Number: 27333 – CRS should be used

79 PTS NO REV CARMARTHEN

- LNW 1/6/10 Incident Number: 51568 – correct Tiploc should be used

0S28 CAPEB BASFDHALL

- LNW 4/6/10 Incident Number: 61505 – correct Tiploc should be used

4C81 TRAFFIC RUGELEYP5

- Kent 19/5/10 Incident Number: 22047 – CRS code should be used

2D40 AWS PROBLEMS CRAYFORD

- Kent 19/5/10 Incident Number: 22238 – correct tiploc should be used

0Z50 5 LOST LATCHMEREJN

One further issue was identified in Western Route where 2 separate CRS codes were observed being used for Bristol Temple Meads – BRI and BTM (examples below). It is noted that BRI is the CRS code identified in the Western EESIC Appendix and so should be used. However, for some reason, TRUST does appear to map both of these codes to Bristol Temple Meads.

- Western 21/5/10 Incident Number: 28124

1C32 OVERTIME BRI

- Western 18/5/10 Incident Number: 18976

2K08 FITTERS WIPERS BTM

Use of 'local terminology/jargon' in Incident description field

While EESIC is aiming to remove 'local jargon' from the incident description fields, there were still some limited observations of this occurring.

On Western, the use of the phrase TLIR (Time Lost In Running) still occurs (132 records out of nearly 14,000 records for the week sampled). This should be now replaced with 'X Lost' to comply with EESIC. This phrase was not observed on either LNW or Kent.

Other examples which were picked up which may not be EESIC compliant include:

- Western 22/5/10 Incident Number: 21836 – Use of term 'suicidal'

SUICIDAL PERSON NORTNZWJ

- LNW 1/6/10 Incident Number: 51575 – term 'STATION OT' should read '3 OT'.

2N21 STATION OT SEN

- Kent 24/5/10 Incident Number: 34457 – use of term 'Hard Down'.

FAY DJ TCF HARD DOWN

Failure to record equipment number or fault number (if appropriate)

On each Route, it was observed that the equipment number or fault number field was not populated (or not populated correctly) for incidents where it would have been appropriate to do so. There were also some examples of Equipment Field and Fault Number fields being populated with "NA" or "X" on all Routes – according to EESIC in these cases, these should be left blank.

Examples include:

- Western 21/5/10 Incident Number: 27333 – Equipment field states “79”, but should read “CM79” to ensure clear reference to where the points are which have failed.
- Western 21/5/10 Incident Number: 27259 – Fault with barriers, but the Incident FMS field was not populated.
- LNW 1/6/10 Incident Number: 51605 – Equipment number populated as “XBD5” for a TOC incident. It is not clear what this refers to.
- Kent 23/5/10 Incident Number: 31140 – Equipment number populated as “9430/9423” which is not appropriate.

Late Starts

It was noted that EESIC does not provide guidance for how to describe incidents due to Late Starts in the Incident Description field. The review indicates inconsistencies in approach on each Route with both ‘Late Start’ and ‘LS’ in popular use. Examples based on LNW are shown below.

- LNW 1/6/10 Incident Number: 51640

4S13 LATE START WARRTWOJS

- LNW 2/6/10 Incident Number: 55118

1H70 L/S EUS

C1.5 Other Issues From Review

Inconsistency in Start Time

A small number of inconsistencies were noted between the time shown in the Start Time field, and the start time of the incident as recorded in the Incident Log Text. This issue was only observed on Western Route, with examples shown below.

- Western 21/5/10 Incident Number: 27259 – Start Time Field states 16:31 while initial Incident text states incident started at 16:25:

DESCRIPTION*** 21-MAY-2010 16:52:00 *** QDP4396 ***
 *** 21/05/10 16:52 #QDP4396 *** CREATED BARRIERS FAILED DOWN BRUERN.....16:25 SIGNALLER ADVISES THAT BRUERN BARRIERS HAVE FAILED IN THE DOWN POSITION SIGNALLER UNABLE TO CLEAR SIGNALS. 16:27 ASHCHURCH MOM ADVISED E.T.A. 17:15. 16:30 ASCOTT SIGNALLER ADVISES THAT HE HAS BEEN ABLE TO MANAGE THE FAULT BY OPERATING THE CROSSING STOP BUTTON HE THEN GETS CROSSING CLEAR AND IS ABLE TO CLEAR HIS SIGNALS. TRAIN HAS PASSED OVER THE CROSSING AND SIGNALLER HAS RAISED HIS BARRIERS.

- Western 21/5/10 Incident Number: 27367 – Start Time Field states 17:38 while initial Incident text states incident started at 17:22.

DESCRIPTION*** 21-MAY-2010 17:38:00 *** QDP4396 ***
 *** 21/05/10 17:38 #QDP4396 *** CREATED WANTRD 8587PTS NO NORM DETECT.....16:42 SWINDON IECC REPORT NO NORMAL DETECTION 8587PTS AT WANTAGE ROAD FOLLOWING PASSAGE OF 5250 (1602 DIDCOT - BARTON HILL) DOWN TRAINS TO RUN VIA RELIEF LINE TECHS ETA 25MINS. 16:45 SWINDON IECC REPORT NORMAL DETECTION OBTAINED NORMAL RUNNING RESUMED ON DOWN MAIN. 17:22 SWINDON IECC REPORT FAULT IN ORDER BALLAST REMOVED FROM POINTS.

Incidents Not Correctly Attributed at Level 1 Despite Information Being Available

On the Western Route, a number of incidents were observed where the ‘M8’ code (DMU failure: Other) was used for initial attribution, yet the actual (correct) cause of the incident had been detailed in the initial incident log. While the review indicated that the delay minutes would ultimately be updated to the correct pot, such practice leads to additional (unnecessary) work. An example is shown below.

- Western 20/5/10 Incident Number: 24455 – initial incident text states the problem is due to AWS (and so MT would be appropriate), yet coded to M8 (and subsequently updated to MT).

```
DESCRIPTION*** 20-MAY-2010 14:49:00 *** QDP0017 ***
*** 20/05/10 14:49 #QDP0017 *** CREATED IC17 AWS PROBLEMS TO RDG - COPIED FROM CONTROL LOG - 20/05/2010 14:30 READING PANEL REPORTED THAT DRIVER
OF IC17 WAS UNABLE TO CANCEL THE AWS FOR THE PSR APPROACHING READING ON THE DOWN MAIN. DRIVER HAS CONFIRMED IT IS A FAULT WITH THE ON-
BOARD EQUIPMENT. FGW AWARE.
RESOLUTION*** 20-MAY-2010 19:59:00 *** EFE2044 ***
* 20/05/10 19:59 #EFE2044 * ACCEPTED BY USER
RESOLUTION*** 20-MAY-2010 17:03:00 *** EFC0241 ***
* 20/05/10 17:03 #EFC0241 * ACCEPTED BY USER
RESOLUTION*** 20-MAY-2010 15:58:00 *** EFC0241 ***
* 20/05/10 15:58 #EFC0241 * ACCEPTED BY USER
RESOLUTION*** 20-MAY-2010 15:08:00 *** EFC0241 ***
* 20/05/10 15:08 #EFC0241 * ACCEPTED BY USER AS PER FGW CTRL LOG SEQ 44 - IC17 BROUGHT TO A STAND AT DM34 UNABLE TO CANCEL AWS. AWS RESET AND
BRAKES RELEASED.
RESOLUTION*** 20-MAY-2010 15:06:00 *** EFC0241 ***
* 20/05/10 15:06 #EFC0241 * CODE CHANGED REASON CODE UPDATED FROM M8 TO MT * 20/05/10 15:06 #EFC0241 * CODE CHANGED RESPONSIBLE MANAGER CODE
UPDATED FROM MEFA TO MEFB
```

Examples were identified of CCF not being used at Level 1 when could have explained reason for incident. Also examples were observed where the initial incident text stated that CCF shows no conflicts, whereas the later text states that the incident occurs in an area not covered by CCF (thus highlighting an inconsistency in the initial log). Examples are listed below.

- Western 22/5/10 Incident Number: 21888 – CCF could have been used at Level 1 to identify the cause.

```
DESCRIPTION*** 19-MAY-2010 12:35:00 *** QDP0047 ***
*** 19/05/10 12:35 #QDP0047 *** CREATED 6M04 LIR TO FILTON AW SPOKE TO BRISTOL PANEL WHO ADVISED THAT NO DELAYS REPORTED.
DESCRIPTION*** 19-MAY-2010 18:04:00 *** QDP4175 ***
*** 19/05/10 18:04 #QDP4175 *** AMENDED
DESCRIPTION*** 21-MAY-2010 12:48:00 *** QDDRC03 ***
*** 21/05/10 12:48 #QDDRC03 *** AMENDED RE-CODED AND HEADER AMENDED; CCFR SHOWS EARLY-RUNNING 2K17 ALLOWED OVER NARROWWAYS JCT BEFORE
6M04. CC DRC. ** RESPONSIBLE MANAGER CODE UPDATED FROM FD8C TO QQDJ ** REASON CODE UPDATED FROM FO TO OB
RESOLUTION*** 19-MAY-2010 18:00:00 *** DBP0005 ***
* 19/05/10 18:00 #DBP0005 * DISPUTED INCORRECT DELAY CODE DISPUTED REPORTED CAUTIONARY ASPECTS VIA SMS FROM DRIVER. PE RUSAL OF CCF
CONFIRMS - EARLY RUNNING 2K17 PASSES ACROSS PATH OF 6M04 TLIR REGAINING LINE SPEED FROM CAUTIONARY
```

- Western 19/5/10 Incident Number: 22986 – Initial incident log states that CCF shows no conflicts, and TOC log states there is no CCF in area, giving an inconsistent story.

```
DESCRIPTION*** 19-MAY-2010 22:32:00 *** QDP0018 ***
*** 19/05/10 22:32 #QDP0018 *** CREATED 2C80 3 LOST PNZ SER 22:30 BOTH SIGNALLERS ADVISED NO KNOWN REASON CCF SHOWS NO CONFLICTS
RESOLUTION*** 20-MAY-2010 00:22:00 *** EH00377 ***
* 20/05/10 00:22 #EH00377 * ACCEPTED BY USER PL36 DWR TO ADVISE NO CCF IN AREA. (MDR) * 20/05/10 00:22 #EH00377 * CODE CHANGED RESPONSIBLE MANAGER
CODE UPDATED FROM TEHX TO TEHA REASON CODE UPDATED FROM TO TO TG EQUIPMENT NUMBER UPDATED FROM ----- TO PL36
```

TOC 'Flag Codes'

It was noted that TOCs appear to tend to apply certain delay codes as 'flag codes' at Level 1, which is effectively to alert Level 2 that this incident is disputed, e.g. TR appears to be used for Arriva Cross Country. In such circumstances, the initial Level 1 attribution may appear at odds with the incident details.

Lack of Data provide by TOC in TRUST

On LNW it was observed that a number of incidents were recoded by the TOC (e.g. to TG - driver) and accepted, without any further supporting evidence included in the text. It is likely that this is a result of the drivers report being returned, and that relevant information on the incident is subsequently input into Bugle for the TOC's reference. However, it may be helpful for Network Rail future analysis to capture this additional information. This may be an area for Network Rail to explore with relevant TOCs as appropriate. Examples are shown below:

- LNW 1/6/10 Incident Number: 51665

DESCRIPTION*** 01-JUN-2010 08:53:00 *** QRP4311 ***
*** 01/06/10 08:53 #QRP4311 *** CREATED 2N214 LOST BHM KNN TSID CHECKED AND SHOWS NO CONFLICTING MOVEMENTS; CCF CHECKED AND SHOWS NO
CONFLICTING MOVEMENTS; SIGNALLER(S) BELOW ADVISED THAT THIS SERVICE RECEIVED NO ADVERSE SIGNALS AND KNOWS OF NO OTHER CAUSES OF DELAY
WHEN ASKED; ALL TSR'S & ESR'S ACCOUNTED FOR; NO KNOWN INFRASTRUCTURE PROBLEMS CAUSING DELAY TO THIS SERVICE. COULD TOC ASSIST WITH
DELAY PLEASE? THANKS. SIGNALLER(S) ASKED: NEW ST AND SALTLEY TIME CONTACTED BOX(ES); 0849 TRACTION NUMBER: 323218 323211
RESOLUTION*** 01-JUN-2010 08:59:00 *** EJG1407 ***
* 01/06/10 08:59 #EJG1407 * CODE CHANGED RESPONSIBLE MANAGER CODE UPDATED FROM TEJA TO TEJB REASON CODE UPDATED FROM TO TO TG * 01/06/10
08:59 #EJG1407 * DISPUTED PARTIAL ACCEPTANCE S DVR CLR ADP DRIVER TO ASSIST RMA TNS210

- LNW 1/6/10 Incident Number: 51657

Appendix D

Agenda for Route Visits

D1 Part A Reporter – Outline questions for Q1 Route Visits

The following areas will be the focus of questions during the Route visits to Western, Kent and LNW.

- How is delay attribution managed and organised on the Route? This will cover all levels.
- What are the training and competence arrangements?
 - Training/ briefing updates - how is competence of DA staff maintained through the various changes to 'rules' and guidance (DAG updates, ADRC resolutions etc)?
- What are the key documents used by the Route with relation to TDA.
- What verification checks have been carried out in accordance with the relevant manuals? Provide the last 6 months records for perusal, including rectification action taken where necessary.
- During severe disruption e.g. the heavy snowfalls in P10, how is delay attribution managed, particularly in regard to the applicable timetable?
- Is the route fully compliant with the industry rules?
 - Are there any 'local' arrangements (eg small minutes agreements) in place?

- Data Quality follow up - how does the Route follow up discrepancies highlighted in the routine national team checks?

The following areas are for discussion jointly with the TOC/FOC representative

- How is the TOC/FOC organised to manage attribution and resolution activities?
- Does the TOC/FOC have any areas of concern in the accuracy of recorded TRUST data? (and what have they done to progress these concerns with Network Rail?)
- What is the current dispute position? Which way are trends going currently and why?
- Day 2 cancellation checks – is the new check being carried out with the TOC and what results are being produced? Does the evidence demonstrate any impact of SRP77?