

Ref:	NR/L3/AMG/02107
Issue:	3
Date:	1 June 2008
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Level 3

The provision of track category and traffic data

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Issue record

Issue	Date	Comments
1	August	First issue – supports procedure NR/SP/BUS/02016. These two documents supersede Company Procedure RT/E/P/02106.
2	December 2007	Territory Engineer [Civils] added as recipient of information and process for updating line speed in master track database included. Alteration to frequency of timetable uploads and method of path population. Written sign off from Territory Engineer [Track] required via appendix B to indicate quality of data is sufficient prior to upload to master track database. This document was formerly NR/WI/BUS/02107.
3	June 2008	Phase 2A/Engineering reorganisation responsibility change.

Compliance

This Network Rail standard is mandatory and shall be complied with by Network Rail and its contractors if applicable from 26 August 2008.

When this standard is implemented, it is permissible for all projects that have formally completed GRIP Stage 4 to continue to comply with the Issue of any relevant Network Rail Standards current when GRIP Stage 4 was reached and not to comply with requirements contained herein, unless the designated Standard Owner has stipulated otherwise in the accompanying Briefing Note.

Reference documentation

See clause 3

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1 Purpose

To define the process for identifying, evaluating and providing information about track category, planned traffic flows and short-term changes to traffic. This enables informed decisions to be made about asset stewardship, inspection, maintenance and renewal.

2 Scope

This work instruction applies to all lines where Network Rail is responsible for maintenance and renewal of the track. It covers annual and short-term planning and applies to the Engineering, Maintenance and Information Management teams.

It sets out the national process for:

- Identifying planned traffic flows and their effect on track category
- Identifying changes in traffic flows and their effect on track category
- Updating the Traffic Database
- Evaluating the impact of identified changes
- Distributing information regarding identified changes in track category and related traffic information

3 Reference Documentation

- [GC/RT5023](#) *Categorisation of Track*
- [NR/SP/INF/02020](#) *MIMS for Network Rail Work Management*
- [NR/SP/TRK/001](#) *Inspection and Maintenance of Permanent Way*

4 Definitions

BRS

Business Route Section (refers to track configuration data)

ELR

Engineer's Line Reference

PSR

Permanent (Line) Speed Restriction

WTT

Working Timetable

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Actual Traffic Database (ACTRAFF)

A system that calculates actual track category from historic traffic flows and tonnage data. ACTRAFF information is used as the comparison data when using the Tonnage Comparison Tool.

Equivalent Million Gross Tonnes Per Annum (EMGTPA)

A measure of the annual tonnage carried by a section of track, taking into account variations in track damage caused by normal traffic types. EMGTPA is a key component in the calculation of track category.

Master Track Database (GEOGIS)

GEOGIS (Geography and Infrastructure System) is the Network Rail master database for track. It provides information on asset age, configuration, location, and, for some assets, condition. It is also the master database for information on ELRs and BRSSs.

Ellipse

An integrated asset management system and associated set of processes which supports work planning and work management activities, and which includes a register of track assets and their attributes.

Track Category Determination Graph

A visual representation of the relationship between linespeed and EMGTPA and their impact on track category, as published in [GC/RT5023 Categorisation Of Track](#).

Track Category

Track category is an estimate of the impact of traffic on track, based on 7 category bands – 6, 5, 4, 3, 2, 1, 1A – where 6 indicates the lowest impact and 1A the highest. It is produced by measuring EMGTPA against the speed of traffic and is used to determine inspection frequencies and renewals specifications.

Tonnage Comparison Tool (TCT)

A utility which compares planned traffic data with actual traffic to establish short term changes in traffic flows.

Traffic Database (NETRAFF)

The network traffic system currently used to calculate track category. To do this, NETRAFF uses traffic characteristics including tonnage, vehicle data and Equivalent Million Gross Tonnes per Annum (EMGTPA). Netraff is used as the baseline when using the Tonnage Comparison Tool.

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5 Responsibilities

5.1 The Asset Systems Applications Manager shall:

- annually update the Traffic Database with the most recent version of the working timetable available and any supporting train running data
- update rolling stock base data in the Traffic Database when new vehicle types are introduced in the Rolling Stock Library
- provide actual traffic data for use in the TCT on at least a four-weekly cycle
- run the NETRAFF EMGTPA calculation on behalf of the Assistant Positioning and Traffic Analyst

5.2 The Assistant Positioning and Traffic Analyst in the Engineering Data team shall:

- maintain and correct path and vehicle consist data in the Traffic Database
- carry out data cleansing and analysis, following the priorities set by the Principal Maintenance Support Engineer [Track]
- produce four-weekly reports that detail any differences in comparison with the baseline annual tonnage, EMGTPA and Track Categories. These will enable the Positioning and Traffic Analyst to identify any significant changes

5.3 The Positioning and Traffic Analyst shall:

- maintain and update permanent speed restriction data in the Master Track Database
- review other reference data used by the Assistant Positioning and Traffic Analyst (e.g. Track Configuration)
- work with the Operational Planning team to identify potential and actual short-term traffic flow changes
- carry out a sense check on the data that is output from the TCT
- escalate any significant data quality issues
- notify the Principal Maintenance Support Engineer [Track] and Territory Civil Engineer of the baseline Track Categories and EMGTPA
- notify the Principal Maintenance Support Engineer [Track] and Territory Civil Engineer of significant changes in annual tonnage and EMGTPA and all changes in track category
- provide a quarterly report detailing significant changes in annual tonnage and EMGTPA and all changes in track category levels
- receive and retain emailed acknowledgements from the quarterly reports

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5.4 The Principal Maintenance Support Engineer [Track] shall:

- advise the Assistant Positioning and Traffic Analyst of the sensitivity of the different routes in the Delivery Units they support
- review the baseline track category figures before they are uploaded into the Master Track Database
- review changes notified to them by the Positioning and Traffic Analyst
- assess the impact of changes on renewal regimes and inspection and maintenance frequencies
- consult with the Maintenance team as appropriate with reference to the above assessments
- notify the Infrastructure Maintenance Engineers and Principal Renewal and Enhancement Engineer [Track] of the baseline track categories, and also of any significant changes to the baseline
- consult as appropriate and decide if identified routes with increased tonnage can carry traffic safely
- provide an email acknowledgement to the Positioning and Traffic Analyst on the receipt of quarterly reports

5.5 The Infrastructure Maintenance Engineer shall:

- consult with the Principal Maintenance Support Engineer [Track] to assess the impact of track categories on maintenance and inspection frequencies