



Operational Planning

Glossary of Terms

Issue No. 5

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| Absolute Block | A signal system which allows only one train to occupy a Block Section at one time (see 'Block Section'). This system uses signals that are manually operated from a Signal Box and Block Sections can be extremely long and of varying lengths. |
| Access Agreement | An agreement that sets out the terms and conditions under which train operators obtain permission to use the railway from either the owner or principal operator of a facility. |
| Access Conditions | See 'Network Code'. |
| Access Condition D | See 'Part D'. |
| Access Disputes Resolution Committee | A Committee formed of a mixture of Network Rail and Train Operator representatives (8 members, plus a Chairman and Secretary). The purpose of the Committee is to discuss and, if possible, settle by agreement, the disputes that are referred to it by Railway Industry parties in connection with Access Agreements and Conditions. |
| Activity (TSDB) | A TSDB value at a location (normally a stopping location) indicating the activity taking place. |
| ADRC | See 'Access Disputes Resolution Committee' |
| Annual Plan | Produced by Territory Delivery Planning Manager and contains Work Banks detailing asset maintenance and renewals, and development and investment schemes. Forms the basis for Rules of the Route formulation. |
| APIan | Data transfer and validation mechanism used for passing train data between different Network Rail/Train Operator systems, as part of the formal business process. The data interface definition is the Public Interface Format (PIF). |
| ARS | See 'Automatic Route Setting' |
| Association of Train Operating | Organisation representing the interests of most of the National and International passenger Train |

Companies

Operating Companies. It manages a range of network services, products and responsibilities on behalf of these Train Operators, including the National Conditions of Carriage (the passenger's contract with the Train Operators), the National Rail Enquiry Service, the licensing of rail-appointed travel agents, National Railcards, the London Travelcard and Network Railcard.

ATOC

See 'Association of Train Operating Companies'

ATP

See 'Automatic Train Protection'

Attaching

The coupling of extra vehicles (or Loco) to a train, which will continue its journey in this combined formation. See also 'Train Associations'.

Automatic Route Setting

A system for setting the route of a train without the action of a Signaller, based upon a stored timetable (see 'Timetable Processor'), train running information (see 'Train Running System, TOPS'), defined priority, selection criteria and operating algorithms.

Automatic Train Protection

A safety system that enforces either compliance with, or observation of, speed restrictions and/or the instructions being indicated by signalling equipment.

Automatic Warning System

A system that provides audible and visual warnings to the train Driver on the approach to Signals, certain Level Crossings, and Temporary and Permanent Speed Restrictions.

Avoiding Line

A line provided to 'by-pass' a passenger station or platforms, for use by non-passenger services or those passenger services not required to stop at the station.

AWS

See 'Automatic Warning System'

Axle Counters

A modern alternative to track circuits whereby the system records the number of axles passing onto a section and again when leaving. Provided that the number is the same on each occasion, the train is deemed to be "complete" and the section is clear.

Back-timing

The principle used when the crucial time in a train specification is NOT that of departure from Origin point. This may mean that the train is planned based on a fixed or restricted arrival time at its Destination or at a significant intermediate point such as a congested station/junction.

The significant intermediate point may also be an inter-Planning Centre handover point where the Centre from which the train is running agrees to fix the time and alter its domestic times accordingly, possibly requiring an earlier departure from the Origin point.

Ballast

The bed of a railway track, usually of granite or limestone, which holds the track in place.

Banner Repeater

Banner Repeating signals are provided on the approach to certain signals and give advance information about a signal which has a restricted sighting distance e.g. because of curvature in the line, tunnels or buildings etc.

Bay Platform

A 'dead-end' platform at a station that cannot be used for 'through' trains unless they reverse at the station in question.

Bid

Aspirational details of train service requirements advised by Train Operators to Network Rail in accordance with the process defined in Part D of the Network Code.

Bi-directional Signalling

Signalling which permits trains to run in either direction on the same running line (also known as reversible signalling).

Block Section

A section of line under the control of one Signal Box, between the Section Signal of that Signal Box and the Home Signal of the Signal Box ahead. See 'Section Signal' and 'Home Signal'.

Box Time

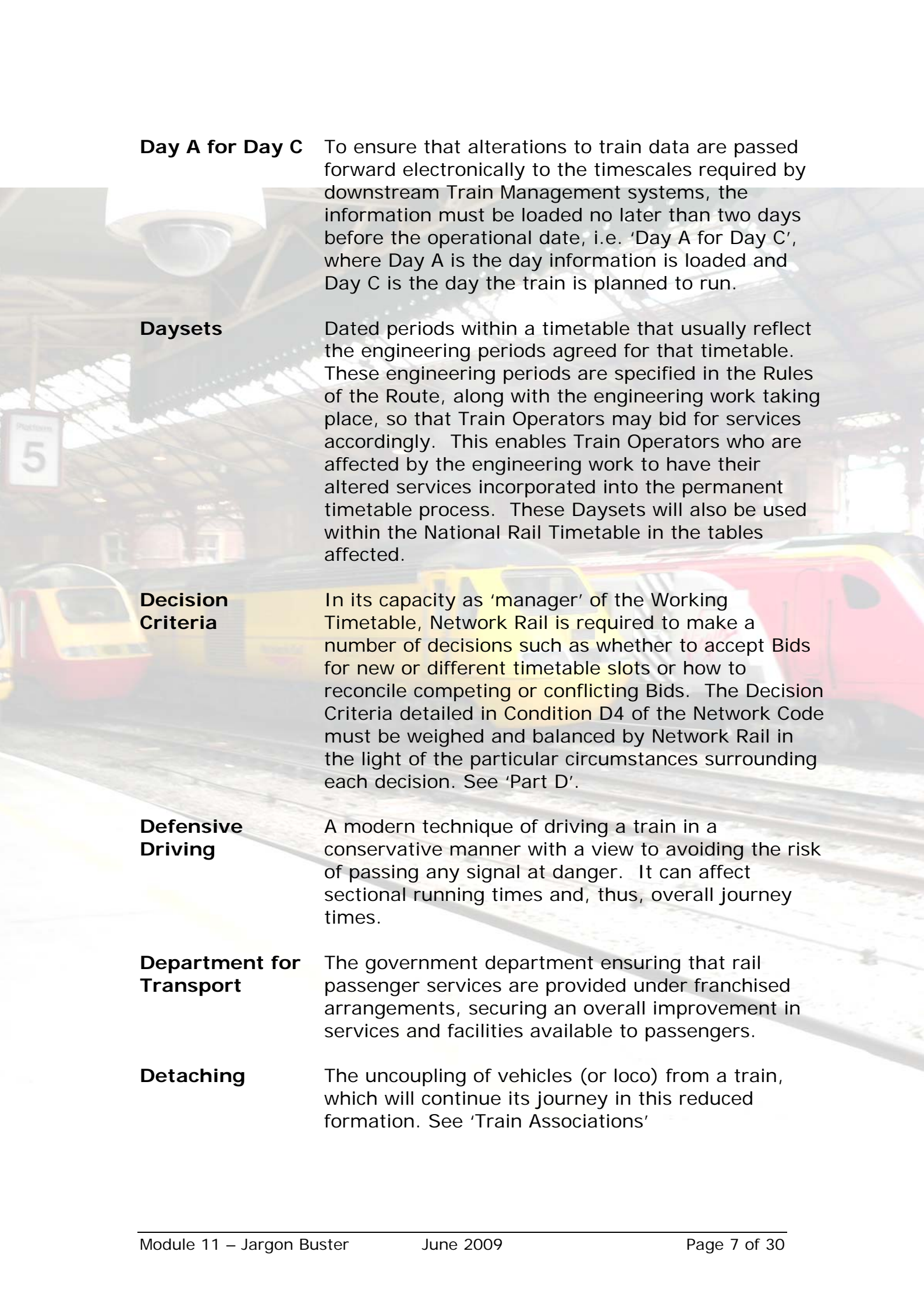
See 'Engineering Allowance'

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| CAPE | Taken from the former telegraphic code book to indicate that a train is cancelled. |
| Category (TSDB) | A TSDB value used to describe the general attributes of a train, e.g. 'XX' = Express Passenger, 'EE' = Empty Coaching Stock. |
| Chain | A distance of 22 yards, i.e. 80 to a mile. |
| Charter Trains | Trains that are run on behalf of private parties, eg football or enthusiast specials. |
| CIF | See 'Common Interface File' |
| Circle Time | See 'Pathing Allowance' |
| CIS | See 'Customer Information Systems' |
| Class Representative Committee | A committee charged with the responsibility for considering and approving proposals for changing the Network Code. The Committee is made up of representatives of each of the four interest groups (or 'Classes'), namely Network Rail, franchised Passenger Train Operators, non-franchised Passenger Train Operators and non-Passenger Operators. |
| Clock Face Times | This refers to a pattern of services where departures from the same start point are fixed at the same number of minutes past each hour, at a specified frequency. |
| Colour Light Signalling | Signals displaying aspects by means of coloured lights which offer the driver the same indications whether by daylight or in darkness. Such signals can display up to four aspects. |
| Common Interface File | <p>The Common Interface File (CIF) format has been developed as the standard for transfer of railway timetable data electronically from Network Rail's central Train Service Database (TSDB) to the large number of other computer systems that require such information.</p> <p>CIF is updated each night with train information that has been amended on TSDB during the working day and these changes can be made available to other systems on a nightly basis.</p> |

The selection of schedules to be included for each user can be varied by several selection filters including type of train, geographical area and timetable period.

CIF is administered by the Operational Planning Support Unit (OPSU) at Leeds. OPSU is responsible for the maintenance of extract selection criteria for each user of the system and also for ensuring that extract files are correctly produced in accordance with requests received from these users.

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|---------------------------------------|---|
| Conductor Rail | see 'Third Rail Electrification'. |
| Confliction | A situation in which the path of one train runs through the path of another train travelling in the same direction, opposite direction (e.g. single line) and/or crossover/junction. |
| Connectional Allowance | The time margin necessary to enable a passenger to continue his/her journey when changing trains. Usually shown as a minimum value and, in many cases, published in the NRT (see National Rail Timetable). |
| Coupling | The act of attaching one or more vehicles to others using the mechanism provided at each end of the vehicles. Specifically used to mean attaching a locomotive to a train. |
| Crossovers | One or more sets of connecting tracks between running lines, used to allow trains to move from one to another e.g. from Fast Line to Slow Line or from Up to Down line or vice versa. |
| Customer Information Systems | A generic term applied to a multitude of different systems that are used in and around stations to drive arrive/depart display boards, public address systems etc. Many of these systems derive their timetable data from TSDB via CIF (see 'Common Interface File'). |
| Daily Amended Timetable Notice | Daily notice containing amended items that have arrived too late to be included in the WATN (see 'Weekly Amended Timetable Notice') |
| DATN | See 'Daily Amended Timetable Notice' |



Day A for Day C To ensure that alterations to train data are passed forward electronically to the timescales required by downstream Train Management systems, the information must be loaded no later than two days before the operational date, i.e. 'Day A for Day C', where Day A is the day information is loaded and Day C is the day the train is planned to run.

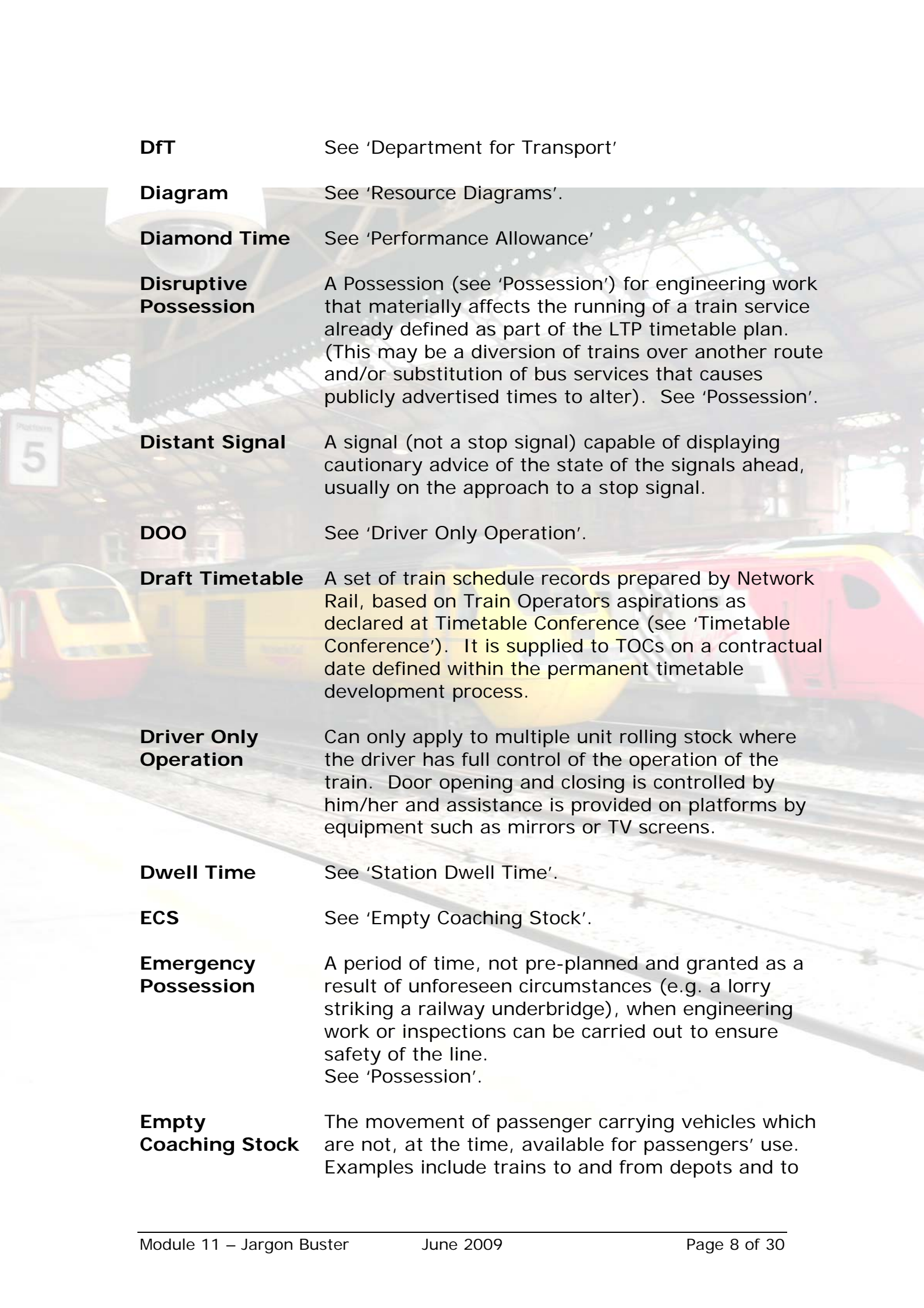
Daysets Dated periods within a timetable that usually reflect the engineering periods agreed for that timetable. These engineering periods are specified in the Rules of the Route, along with the engineering work taking place, so that Train Operators may bid for services accordingly. This enables Train Operators who are affected by the engineering work to have their altered services incorporated into the permanent timetable process. These Daysets will also be used within the National Rail Timetable in the tables affected.

Decision Criteria In its capacity as 'manager' of the Working Timetable, Network Rail is required to make a number of decisions such as whether to accept Bids for new or different timetable slots or how to reconcile competing or conflicting Bids. The Decision Criteria detailed in Condition D4 of the Network Code must be weighed and balanced by Network Rail in the light of the particular circumstances surrounding each decision. See 'Part D'.

Defensive Driving A modern technique of driving a train in a conservative manner with a view to avoiding the risk of passing any signal at danger. It can affect sectional running times and, thus, overall journey times.

Department for Transport The government department ensuring that rail passenger services are provided under franchised arrangements, securing an overall improvement in services and facilities available to passengers.

Detaching The uncoupling of vehicles (or loco) from a train, which will continue its journey in this reduced formation. See 'Train Associations'



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| DfT | See 'Department for Transport' |
| Diagram | See 'Resource Diagrams'. |
| Diamond Time | See 'Performance Allowance' |
| Disruptive Possession | A Possession (see 'Possession') for engineering work that materially affects the running of a train service already defined as part of the LTP timetable plan. (This may be a diversion of trains over another route and/or substitution of bus services that causes publicly advertised times to alter). See 'Possession'. |
| Distant Signal | A signal (not a stop signal) capable of displaying cautionary advice of the state of the signals ahead, usually on the approach to a stop signal. |
| DOO | See 'Driver Only Operation'. |
| Draft Timetable | A set of train schedule records prepared by Network Rail, based on Train Operators aspirations as declared at Timetable Conference (see 'Timetable Conference'). It is supplied to TOCs on a contractual date defined within the permanent timetable development process. |
| Driver Only Operation | Can only apply to multiple unit rolling stock where the driver has full control of the operation of the train. Door opening and closing is controlled by him/her and assistance is provided on platforms by equipment such as mirrors or TV screens. |
| Dwell Time | See 'Station Dwell Time'. |
| ECS | See 'Empty Coaching Stock'. |
| Emergency Possession | A period of time, not pre-planned and granted as a result of unforeseen circumstances (e.g. a lorry striking a railway underbridge), when engineering work or inspections can be carried out to ensure safety of the line. See 'Possession'. |
| Empty Coaching Stock | The movement of passenger carrying vehicles which are not, at the time, available for passengers' use. Examples include trains to and from depots and to |

and from stabling points between revenue earning services.

Engineering Allowance

Additional time added to a train in order to provide an allowance for reduced speed (see 'Temporary Speed Restrictions') over sections of route as a result of engineering work. For this reason it is sometimes also referred to as 'Recovery Time'. Engineering Allowance is also referred to as 'Box Time' because the traditional method of representation in the printed Working Timetable was to enclose the figure in a box or between a pair of square brackets.

ERTMS

See 'European Rail Traffic Management System'.

European Rail Traffic Management System

A method of train control and signalling, using both on and off train equipment, whereby the system can override the driver's commands if certain parameters are being exceeded. The intention is to have a common system across Europe.

Excursion Trains Feather

See 'Charter Trains'

A row of white lights positioned above a colour light signal head to indicate to the driver of an approaching train which route his train will proceed along. More than one set of lights may be used, dependent upon the number of alternative routes available. Also known as a Junction Indicator.

Firm Contractual Rights

In the case of a Train Operator's Bid, a right under its Access Agreement in respect of the quantum (see 'Quantum'), timing or any other characteristic of a train movement.

In the case of Network Rail, a right under the applicable Rules of the Route or Rules of the Plan.

Flighting of Trains

A method of developing a timetable plan by the grouping of trains with similar speeds to achieve optimal use of available infrastructure capacity.

FLT

See 'Freightliner Terminal'

FOC

See 'Freight Operating Company'



Freight Operating Company

A Company currently operating freight train services within the UK and generally on a commercial basis, the vehicles on which may be owned or leased or supplied by the customer.

Freightliner Terminal

A purpose built freight facility for the transfer of containerised traffic between rail and other modes of transport.

Gauging Requirements

The physical constraints imposed on the passage of trains by the physical height and width dimensions of the infrastructure e.g. width of bridges, positioning of line side equipment (often referred to as the Kinematic Envelope).

Goods Line

A line maintained and signalled to a lesser standard than that required for the operation of trains conveying passengers.

Green Zone

An area of protection for trackside workers, separating them from train movements other than perhaps movements associated with the work they are carrying out.

Ground Frame

A small lever frame not operated directly to a signalling centre. Local operation is undertaken by a remote release of the equipment by a signaller and is then carried out by either a shunter or the train driver.

Handover (Time)

The time at a Planning Centre boundary agreed between two adjacent Centres and to be used as the basis for onward timing of a train. (See 'Backtiming')

Headcode

See 'Train Identity'.

Headway

The minimum time between successive trains travelling 'on green signals' on the same line. Determined by the time it takes to travel between two signals (or signal boxes)

Home Signal

In block signalling, the first stop signal on the approach to, and worked by, a signal box.

IECC

See 'Integrated Electronic Control Centre'



Informed Traveller

A condition of Network Rail's licence requiring all timetable data to be available to customers/passengers TWELVE WEEKS in advance of their journey. Regulated by the Office of Rail Regulation and often called 'T minus 12', i.e., Timetable minus twelve weeks.

Integrated Electronic Control Centre

The 'super' signal box which controls large areas from one centre. The signalling is controlled by a computer system (Automatic Route Setting) using high-resolution display units showing the track and signalling layouts. See 'Timetable Processor'.

Inter-Route Engineering Conference

The annual meeting between Network Rail and the Train Operators to discuss engineering possession requirements for the next timetable year. Held at 'T minus 64'.

ITPS Junction

See
A point on a running line at which route(s) converge or diverge.

Junction Indicator Kinematic Envelope

See 'Feather'.
See 'Gauging Requirements'.

LATIN

See 'Local Access to Train Information'

Line Capacity

The 'capacity' of the track, determined by a number of factors including the number of running lines, the length of the block sections, relative speed of trains using the track, etc. With Multiple Aspect Signalling, signal spacing is normally at roughly equal intervals which gives higher capacity. The ability to maximise line capacity offers 'White Space' to accommodate additional services.

Linespeed

The speed at which it is permissible to run over a section of line, taking into account Permanent and Temporary Speed Restrictions (see 'Permanent' and 'Temporary Speed Restrictions'), and the characteristics of the train e.g. Timing Load (see 'Timing Load').

Local Access to Train Information

Extract system used by Network Rail and Train Operators to produce train service Simplifiers in a variety of formats from TSDB.

Long Term Planning

The process of developing and producing the Permanent timetable plan.

Loop

A subsidiary section of track with connections to running lines at each end, used to i) allow a slower train to be overtaken by a faster one, ii) allow a locomotive to run-round (see 'Run-round') its train, iii) allow 2 trains on a single line route, travelling in opposite directions, to pass each other. Some can only be accessed by freight trains.

LTP

See 'Long Term Planning'

Margin

The minimum time between trains at a location where the routing of a train takes it across the path of another train e.g. at a Junction.

MAS

See 'Multiple Aspect Signalling'

Merry-go-round Train

A system of train working used to transport bulk loads, usually coal from Colliery or other loading point to Power Stations. So called because the operation is planned for as near continuous operation as is practical.

MGR

See 'Merry-go-round Train'

MOC

See 'Moderation of Competition'

Moderation of Competition

Provisions laid down by the Rail Regulator in Train Operator's Access Agreements which Network Rail must adhere to in granting new access rights - intended to allow limited competition between Train Operators.

Moir

A passenger demand forecasting tool which models the effects of timetable changes on demand patterns and revenue allocations.



Multiple-Aspect Signalling

A system of signalling using colour light signals where the signals controlling entry into individual track sections are operated by the passage of trains over track circuits or axle counters. In this system the distance between signals is relatively short and allows successive trains on the same line to run closer together thus reducing the headway and increasing capacity.

National Rail Enquiry Service

A group of telephone call centres, some located overseas, who deal with questions on train services. It provides both a telephone- and internet-based service and is funded by all the Train Operating Companies – the well-known number is 08457 48 49 50.

National Rail Timetable

Data file produced by Network Rail twice per year as required by the Railway Act 1993 offering equal opportunity to all train operators. The timetable contains all rail services over the National network together with some ancillary services, e.g. shipping connections, European service connections, etc.

National Task Force

A cross-industry body with representation from many players to provide direction and co-ordination on train service performance matters.

NBS

No Booked Services.

Network Change

Defined in Part G of the Network Code, where a Network Change (initiated by Network Rail or a Train Operator) includes any change to any part of the Network, the format of any operational documentation, or any change or series of changes which has lasted for more than 6 months and in each case is likely to affect the operation of the Network or of trains run by an Operator.

Network Code

The Network Code (formerly known as Access Conditions) is a set of rules that are incorporated into each bilateral access contract between Network Rail and a holder of access rights. It does not create any contractual relationship between operators of trains.

Non-disruptive Possession

A Possession for engineering work that does not interrupt the running of a train service, i.e. trains may still pass over the route, possibly under reduced speed or under specific conditions. A Possession may also be described as non-disruptive even if the line is completely blocked, providing it is during a period when there is no train service booked to run. See 'Possession'.

NRES

See 'National Rail Enquiry Service'.

NRT

See 'National Rail Timetable'

Offer

Validated details of train services provided by Network Rail to Train Operators to in accordance with the process defined in Part D of the Network Code.

Office of Rail Regulation

The statutory functions of this government department are:

- 1) The issue, modification and enforcement of licences to operate trains, network and stations.
- 2) The approval of agreements for access by Train Operators to track, stations, etc.
- 3) The enforcement of domestic compensation law.
- 4) Customer protection including a duty (Railways Act 1993) to protect the interests of the users of railway services, including the disabled.

OLE

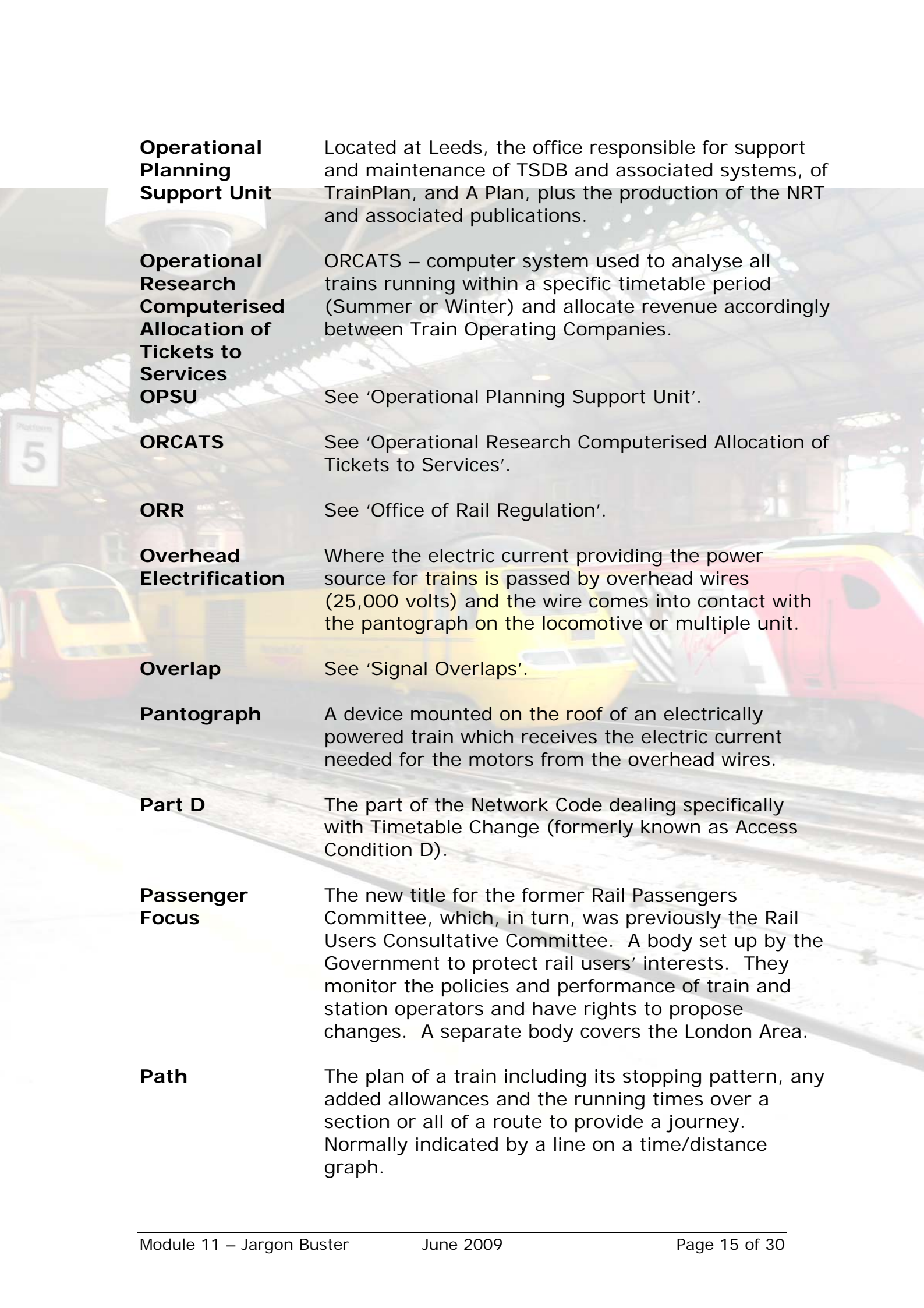
Overhead Line Equipment – see 'Overhead Electrification'

Open Access Operator

A passenger train operator providing services, which are not part of a franchise or subject to International Regulations. Usually operated on a commercial basis.

Operating Characteristics

A number of values available in TSDB and other systems to describe certain attributes of a train e.g. Q = runs as required, R = air conditioned with PA system. They also appear in Working Timetables (see 'Working Timetable') as either letters e.g. Q or symbols e.g. D which appears as a D within a circle (Driver only operation).



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| Operational Planning Support Unit | Located at Leeds, the office responsible for support and maintenance of TSDB and associated systems, of TrainPlan, and A Plan, plus the production of the NRT and associated publications. |
| Operational Research Computerised Allocation of Tickets to Services OPSU | ORCATS – computer system used to analyse all trains running within a specific timetable period (Summer or Winter) and allocate revenue accordingly between Train Operating Companies. See 'Operational Planning Support Unit'. |
| ORCATS | See 'Operational Research Computerised Allocation of Tickets to Services'. |
| ORR | See 'Office of Rail Regulation'. |
| Overhead Electrification | Where the electric current providing the power source for trains is passed by overhead wires (25,000 volts) and the wire comes into contact with the pantograph on the locomotive or multiple unit. |
| Overlap | See 'Signal Overlaps'. |
| Pantograph | A device mounted on the roof of an electrically powered train which receives the electric current needed for the motors from the overhead wires. |
| Part D | The part of the Network Code dealing specifically with Timetable Change (formerly known as Access Condition D). |
| Passenger Focus | The new title for the former Rail Passengers Committee, which, in turn, was previously the Rail Users Consultative Committee. A body set up by the Government to protect rail users' interests. They monitor the policies and performance of train and station operators and have rights to propose changes. A separate body covers the London Area. |
| Path | The plan of a train including its stopping pattern, any added allowances and the running times over a section or all of a route to provide a journey. Normally indicated by a line on a time/distance graph. |



Pathing Allowance

Additional time added to a train in order that the path does not conflict with other trains at, for instance, a junction location or because trains of different speeds are operating over a route. Pathing Allowance is also referred to as 'Circle Time' because the traditional method of representation in the printed Working Timetable was to enclose the figure in a circle or between a pair of curved brackets.

Performance Allowance

Additional time added to a train in order to provide a margin for late running on a day-to-day basis such that an on-time arrival can be achieved. Performance Allowance is also referred to as 'Diamond Time' because the traditional method of representation in the printed Working Timetable was to enclose the figure between a pair of pointed brackets.

Performance Regime

Bilateral agreements between Network Rail and Train Operators and/or Contractors providing for the allocation of responsibility for delays to train services and attendant financial penalties (see also 'Schedule 8').

Period Plan

Four weekly plan produced by each Area Delivery Planning Team detailing the engineering work to take place during that period.

Periodical Operating Notice

Accumulation of Section C and D items in the WON (see 'Weekly Operating Notice') which are published until such time as the relevant documents are re-issued.

Permanent Speed Restriction

A reduction of the normal maximum line speed over a particular section of track due to long term restrictive characteristics of the infrastructure e.g. a sharp curve or deficiencies in track quality.

Permanent Way

The track upon which trains run, including rails, sleepers, ballast and associated infrastructure.

Permissive Working

A method of working, on certain designated routes and in platforms at certain stations, that allows train-running movements to take place into a section of track already occupied by other trains.

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| Physical Needs Break | Principally for train crew and is the time allocated in their diagram for refreshment and toilet breaks. Is commonly known as “taking a PNB”. |
| Pinch Points | Physical aspects of the railway infrastructure that constrain capacity. |
| PNB | See ‘Physical Needs Break’. |
| Point-to-Point Timings | See ‘Sectional Running Times’ |
| PON | See ‘Periodical Operating Notice’ |
| Possession | A period of time when Track Access is required by Network Rail or its Contractors to undertake engineering work. See also ‘Disruptive Possession’, ‘Non-disruptive Possession’ and ‘Emergency Possession’. |
| Possession Planning System | A real time, web-based, information system which allows the planning of access requests to the Rail Network. PPS allows detailed planning of Worksites, Possessions and Temporary Speed Restrictions. |
| Power Type | The type (not class) of traction used to power the train, e.g. Electric Multiple Unit (EMU), High Speed Train (HST) |
| PPM | See ‘Public Performance Measure’. |
| PPS | See ‘Possession Planning System’. |
| Priority Date | Date by which Train Operators must declare to Network Rail the manner in which they wish to exercise their contractual rights for the timetable period in question. |
| Private Siding | A siding which, though connected to the Network Rail network, is owned by a third-party freight customer or facility provider. Network Rail would not normally be responsible for maintenance. |
| Propelling | The process of working a train where the locomotive providing the power is at the rear of the train in the direction of travel and is driven from that end. |

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| PSR | See 'Public Service Requirement' or 'Permanent Speed Restriction'. |
| Public Performance Measure | A compilation of statistical data required by the Government to monitor actual performance against planned. Usually based on service groups and in four-weekly periods and shown as a percentage value. |
| Public Service Requirement | The minimum service level required to be run by a Train Operator under the terms of its Franchise Agreement. |
| PWay | see 'Permanent Way' |
| Q Path | A train which runs as required. Many freight trains run under such an arrangement whereby the path is included in the plan but the train only runs when traffic requires. |
| Quantum | The number of train paths on a specified flow as detailed in Schedule 5 of a Train Operator's Access Agreement (see 'Schedule 5'). |
| Quantum Bid Rights | A provision of the EWS Access Agreement allowing a maximum number of train movements within a specified service group without the restriction of specific paths. |
| Rail Journey Information System | Data from TSDB produced for Booking Offices and On-Line Enquiry Systems for enquiries and reservations. |
| RailPlanner | A PC-based journey enquiry system produced by an outside company using train schedule data from Network Rail via CIF (see 'Common Interface File'). |
| Recovery Time | See 'Engineering Allowance' |
| Red Zone | A site of work on or near the railway line at which Green Zone working has not been possible to establish. |
| Resource Diagrams | Prepared by Train Operators showing the planned utilisation of their resources, i.e. locomotives, units, coaching stock, drivers, other on-train staff, etc. |

Reversible Signalling

See 'Bi Directional Signalling' and 'SIMBIDS'.

Reversing Movement

A change of direction within a train's journey that does not affect the formation of a train or involve a run-round movement with the locomotive (see 'Run-round').

RJIS

See 'Rail Journey Information System'.

Rolling Spot bid

A permanent change to the timetable which may be made at any time outside the permanent timetable development cycle, with the alteration being rolled forward as part of subsequent timetable plans.

Rolling Stock

A collective term for passenger and freight vehicles used to make up trains.

Rolling Stock Companies

Organisations who inherited rolling stock at the splitting of the former British Rail fleet and who have subsequently added new stock types to their books and who lease such stock to Train Operating Companies. They are responsible for all heavy maintenance of their respective stock.

ROSCO

See 'Rolling Stock Companies'.

ROTP

See 'Rules of the Plan'

ROTR

See 'Rules of the Route'

Route

The path along a section of track between one signal and the next.

Route Availability

A numbering system reflecting the axle loading capabilities of each route on the network - it is one of the criteria determining whether vehicles/locomotives may travel over a section of line.

Route Indicator

A screen attached to a signal depicting, by the use of a letter or a number, the route that an approaching train is to take. (See also 'Junction Indicator' and 'Feather').

Route Knowledge

The formal requirement that train crew "know where they are going" and that they understand all the characteristics of the routes over which their train

will pass. If a driver does not have Route Knowledge, he cannot drive the particular train or must be accompanied by another member of staff who does.

Route Utilisation Strategy

The aim to provide a properly performing train service to meet the aspirations of traffic growth, optimisation of capacity and adequate maintenance facilities. Each route for which a strategy is developed is subject to consultation throughout the industry.

RT3973

Authority form prepared by Network Rail and issued by a Freight Operator to the driver of a train detailing the specific speed and routing restrictions applicable to the train. 4 types of form – Heavy Axle Weight, Nuclear, Containers and Exceptional Loads. Also issued to Signallers and Control Staff.

Rule Book

A document containing all the rules and regulations necessary for the safe running of the railway. Has recently been issued in various sections, each with a relevance to a particular activity.

Rules of the Plan

A document issued at the commencement of the timetable planning cycle comprising rules regulating standard timings and other related matter for trains to be planned and scheduled, e.g. timing margins, junction allowances, headways, station dwell times, vehicle restrictions, freight train loads, hours of route openings.

Rules of the Route

A document issued at the commencement of the timetable planning cycle containing:

- 1) Standard possession opportunities which are normally available to carry out maintenance work.
- 2) Location, number, times and duration of major engineering work planned on the infrastructure for the timetable in question.
- 3) Any pre-planned temporary speed and/or other restrictions on train services.

Running Line

A section of track used for through running of trains, as shown in Table A of the appropriate Sectional Appendix.

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| Run-round | The transfer of a locomotive from one end of its train to the other using a run-round loop (see 'Loop') or other suitable track configurations. |
| RUS | See 'Route Utilisation Strategy'. |
| Sandite | Mixture of sand and antifreeze applied to the surface of the rail to aid adhesion during inclement weather conditions e.g. icing, leaf fall etc. |
| Schedule 4 | Part of the contract between Network Rail and Train Operators (18 sections) and includes: - 1) Possession rules and compensation arrangements. 2) Financial values for delaying/cancelling trains. 3) 'Busyness' factors, i.e. a weighting to reflect passenger loading on a train at a particular point of a journey. 4) Key monitoring locations for monitoring performance against plan. 5) Rules of the Route standards. |
| Schedule 5 | Part of the contract between Network Rail and Train Operators (18 sections) and includes: - 1) Train Operators' rights to quantum, interval, calling pattern, clock face patterns. 2) Train Operators' contingent rights - ability to extend core routes, etc. 3) Network Rail's responsibilities and flexing rights. |
| Schedule 8 | Part of the contract between Network Rail and Train Operators detailing the 'Performance Regime' for delay and cancelled trains and payment rates. |
| Section Signal | A stop signal controlling the entrance to a Block Section. See 'Block Section'. |
| Sectional Appendix | Publication detailing the characteristics of the infrastructure through route diagrams, location specific instructions, instructions relating to the Rule Book and Route Availability matters. |
| Sectional Running Times | Timings of trains based on a calculation taking in to account distance between timing points, speed, gradients and other geography, power of locomotive/unit load of train including additional allowance for permanent speed restrictions. |



Semaphore Signalling

An older type of signalling based on signals raised, or lowered, on posts or gantries. When the 'arm' of the signal is square-ended and horizontal a driver is not allowed to pass it. A 'fishtail' notch at the end of the arm denotes a 'distant' signal that acts as a warning to the train driver of the signal ahead.

Short Term Planning

The planning of short term alterations to the permanent timetable, normally on a weekly basis, to cover such things as engineering work, Bank Holiday commercial alterations, Charter trains etc. Should be planned to Informed Traveller timescales (see 'Informed Traveller').

Shunting Signal

A signal provided for shunting purposes only.

Signal Passed at Danger

The accidental passing of a signal set to Red.

Signal

A visual display device that conveys instructions or provides prior warning of instructions regarding the train Driver's authority to proceed.

Signal Box

The building in which the Signallers are situated, together with the control and indication system for the signalling.

Signal Overlaps

The section of line beyond a stop signal that must be unoccupied before and during a train movement approaching the signal.

SIMBIDS

See 'Simplified Bi-directional Signalling'

Simplified Bi-directional Signalling

Reversible signalling where the signalling in the opposite direction to normal traffic provides for a lower speed and/ or capacity than that in the normal direction of running, and bi-directional operation is only required in connection with engineering work or emergencies preventing the use of normal direction line.

Single Line Working

A method of operation introduced temporarily so that the traffic of a double line can pass over one line (not equipped with bi-directional signalling) because of engineering work or because an emergency situation prevents the use of the normal direction line.

| | |
|------------------------------------|--|
| SLU | See 'Standard Length Unit' |
| SPAD | See 'Signal Passed at Danger' |
| Special Trains Notice | Weekly amended trains notice now known as the WATN (see 'Weekly Amended Train Notice'). |
| Spot Bid | Any bid to amend/create a train path outside of the permanent timetable development process (also includes STP). Commonly used to describe bids reflecting changes to the permanent timetable. |
| Standard Length Unit | A length unit, defined as 21 feet, used in the description of rail vehicle and train lengths, and in the description of infrastructure. e.g. a train that is described as 25 SLUs in length would be approximately 525 feet in length, PLUS the length of the locomotive(s). |
| Station Dwell Time | The minimum (or maximum) time that a train is allowed to stand at a station platform. |
| STN | See 'Special Trains Notice' |
| STP | See 'Short Term Planning' |
| T-12 | See 'Informed Traveller' |
| Temporary Speed Restriction | A reduction of the normal maximum line speed over a particular section of track due to short term restrictive characteristics of the infrastructure e.g. during or after engineering work or prior to an identified deficiency being corrected. |
| Third Rail Electrification | Where the electric current providing the power source for trains is passed by a third rail (Conductor rail or Live rail) laid alongside the running rails and is collected through a 'shoe' on the locomotive or multiple unit. The voltage is 750 volts DC (N.B. Electrification for London Underground is 600 volts and is fourth rail.) |
| TID | See 'Train Identity' |
| Timetable Conference | The annual meeting between Network Rail and Train Operators to discuss timetable aspirations for the |

next timetable year.

Timetable Processor

The 'guts' of the Integrated Electronic Control Centre (IECC) which processes the stored timetable data that originates from Train Service Database.

Timing

The process of defining the details (Origin, Destination, Intermediate stops and passing times) of a train by the use of the relevant Sectional Running Times for the train's journey, taking into account other factors such as Station Dwell Time requirements, allowances, margins, headways, infrastructure constraints, other train services, etc.

Timing Load

A value attributed to the traction and load characteristics which determine the SRT's (see 'Sectional Running Times').

TIPLOC

TIming and **PL**anning **LOC**ation code used by TSDB (see 'Train Service Database') and all associated Train Planning systems e.g. PROTIM/TrainPlan. Maximum of 7 alphanumeric characters representing all stopping and passing locations, both freight and passenger, that appear on TSDB schedules.

TOC

See 'Train Operating Company'

Token Working

A method of signalling over a single line ensuring only one train is on the line at any one time. Involves the handing over of a 'token' by the signaller to the driver as authority to proceed.

TOPS

See 'Total Operations Processing System'

Total Operations Processing System

A mainframe system dealing with real time train management, safety and day to day operations, using train schedule data derived from TSDB.

TPWS

See 'Train Protection and Warning System'

Track Access Conditions

See Network Code

Track Circuit

An electrical device using the rails in an electric circuit, which detects the absence of trains on a defined section of line.

Traction Knowledge

The formal requirement that a driver “knows what he is driving” and that he/she fully understands the characteristics of the train of which they are in charge. If a driver does not have Traction Knowledge of the train which he/she is about to drive, he/she cannot do so.

Train Associations

A Train Association is the method used to link trains which, although held on the Train Service Database (TSDB) with separate Unique Identity numbers (UIDs), have a relationship with each other which needs to be defined for the use of systems which draw data from TSDB (often referred to as “downstream” systems).

Train Associations can be used in two different situations:

1) “Join” and “Divide” Associations

The first situation is where trains join or divide somewhere on their journey (“portion working”). TSDB will hold such trains as two (or more) separate UIDs. It is thus necessary to link or “Associate” these in order that through journey opportunities can be identified by passenger enquiry and retail systems such as RJIS and NRS.

Conversely, a train that splits somewhere in the course of its journey will need to have a “Divide” Association defined at the location where this occurs.

2) “Next” Associations

The second situation is where there is a need to define the relationship between a train and the previous or next working, held on a separate UID, of the locomotive/rolling stock used to form that train. Here a “Next” Association is used. The original reason for the development of “Next” Associations was the requirement to generate notation (‘To work’ and ‘After working’) in Working Timetables. The information is now principally used to define relationships between trains to facilitate the correct operation of Automatic Route Setting (ARS) used in areas controlled by Integrated Electronic Control Centres (IECCs).

Train Class

Trains are classified to give an indication of type/attributes and maximum permissible speed.

Class 1

Express passenger train; nominated postal or parcels train; breakdown or overhead line equipment train going to clear the line or returning therefrom (1Z99); traction unit going to assist a disabled train (1Z99); snow plough going to clear the line (1Z99).

Class 9

Class 373/1 or 373/2 train (Eurostars).

Class 2

Ordinary passenger train; breakdown or overhead line equipment train not going to clear the line (2Z99); Officer's special train (2Z01)

Class 3

Freight train capable of running at more than 75 mph or a parcels train or empty coaching stock train where specially authorised.

Class 4

Freight train permitted to run at more than 60 mph

Class 5

Empty coaching stock train

Class 6

Freight train permitted to run at 50, 55 or 60 mph

Class 7

Freight train permitted to run at 40 or 45 mph

Class 8

Freight train permitted or timed to run at 35 mph or less

Class 0

Light locomotive(s)

Train Describer

A system that identifies trains and displays their location to a Signaller.

Train Graph

A visual representation of a train path, either wholly or in part, (see 'Train Path') plotting time along the X axis and timing points along the Y axis to produce a line graph. They are used as part of the train validation process to identify conflicts (see 'Conflicts') and spare capacity. These will either be in printed format or displayed on-screen in TrainPlan (see 'TrainPlan').

Train ID

See 'Train Identity'

**Train Identity**

This is a 4 character train number (sometimes also referred to as Signalling ID or Head Code) primarily for use with the train describer equipment (see 'Train Describer') in Signal Boxes.

The first character is a number indicating the classification of the train in accordance with the Rule Book Appendix instructions (see 'Train Class'). The second character is a letter indicating the destination, groups of services or routes, which should be detailed at the front of each Working Timetable (see 'Working Timetable'). The third and fourth characters are numbers allocated to individual trains and should be detailed at the front of each Working Timetable.

Train Operating Company

A company or Group currently operating one or more of the passenger franchises let by the DfT (see 'Department for Transport') or an Open Access Operator (see 'Open Access Operator') providing services on a commercial basis which are not part of a franchise.

Train Path

A potential train movement which satisfies the criteria laid down in the relevant Rules of the Plan (see 'Rules of the Plan') and Rules of the Route (see 'Rules of the Route').

Train Protection and Warning System

A development of AWS (see 'Automatic Warning System') providing additional control of train speed approaching a signal not displaying a green aspect.

Train Regulation

A signaller's action to control the sequence of trains, taking into account the timetable plan whilst minimising delay at times of out of course running.

Train Running System (TOPS)

A subsidiary TOPS system (see 'Total Operations Processing System') dealing with the monitoring of real time train running and comparing this against the timetable plan.

Train Service Database

A mainframe computer system providing a central store of information containing details of all planned LTP (Long Term Plan) and STP (Short Term Plan) train services operated over Network Rail lines, together with selected other related services. Information on VSTP (Very Short Term Plan) trains is not held. Train Schedule information for these services, planned to extremely short timescales, are

input direct to TOPS (See 'Total Operations Processing System').

Train Slot

See 'Train Path'

TrainPlan

Timing and Planning tool used primarily by Network Rail.

TRUST

See 'Train Running System (TOPS)'

Turn Round Time

The time allowed for a train or locomotive to reverse direction or between the arrival of a terminating train and its next departure. For passenger trains this will include, where necessary, time for 'servicing' of facilities (e.g. filling of water supply tanks for toilets)

TSDB

See 'Train Service Database'

TSR

See 'Temporary Speed Restriction'

TTP

See 'Timetable Processor'

Uncoupling

The act of detaching one or more vehicles from others using the mechanism provided at each end of the vehicles. Specifically used to mean detaching a locomotive from a train.

Very Short Term Planning

The planning of trains in a timescale shorter than Day A for Day C (see 'Day A for Day C'). Usually undertaken by Control Offices or by VSTP Sections located in Control Offices.

VSTP

See 'Very Short Term Planning'

WATN

See 'Weekly Amended Timetable Notice'

Weave

Modified train running whereby a train switches from one running line to another and back again - hence a 'weave'.

WEC

See 'Weekly Engineering Circular'

Weekly Amended Timetable Notice

Contains passenger and freight alterations, engineering pre-ambles for disruptive possessions and Rolling Spot Bids that are submitted too late for inclusion in the Working Timetable. These will be published for a week at a time only as a separate

WATN section - if it becomes appropriate, a sweep-up supplement may be issued to encompass all Spot Bids that have previously been published in the WATN.

Weekly Engineering Circular

Weekly book produced by OPSU (see 'Operational Planning Support Unit') from information supplied by TOCs, detailing alterations to passenger services due to engineering work. Items are documented in NRT Table number and date order.

Weekly Operating Notice

Weekly book produced by Network Rail, split into 4 sections - Section A Temporary Speed Restrictions (lines affected, permitted speeds, reasons for restriction, warning Boards, time lost estimate), Section B Engineering Arrangements (Contractor details, times/place of work, type of work, protection limits/isolating electrical sections), Section C Signalling and Permanent Way alterations (signals removed/altered/repositioned, shortening of platforms, junction/crossover limitations, prohibited lines), and Section D General Instructions and Notices (Sectional Appendix changes, telephone numbers for key staff, special arrangements e.g. scaffolding).

White Space

A phrase used to indicate a 'gap' (conceptually or actually on a train graph) to allow for the pathing of additional train(s). White Space can create a selling opportunity to increase revenue to Network Rail in additional access charges with no increased infrastructure costs.

WON

See 'Weekly Operating Notice'

Worksite

The location at which engineering work takes place. A single possession may include multiple worksites which may frequently support differing types of work.

Working Timetable

At time of compilation 36 Working Timetables produced across the 3 Centres (normally twice per year for Summer and Winter) containing the agreed permanent timetable plan for Passenger, Freight, Empty Stock and Light Engine movements. As well as stopping times, also contain passing times, allowances, platform numbers, Train ID's, Timing Loads (see 'Timing Load') and Operating

Characteristics (see 'Operating Characteristics').

WTT

See 'Working Timetable'

Y Path

A train path to various yards or terminals as traffic levels demand. Usually applicable to freight trains and with a common portion of route over an element of the total journey.

