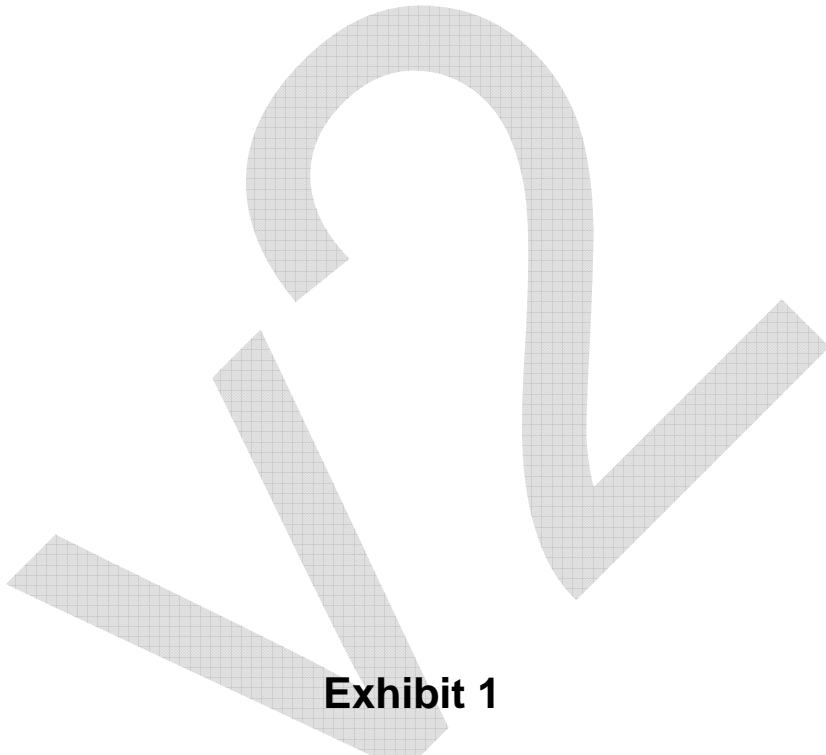


**Rolling Stock PPP  
Double Deck Trains**



**Exhibit 1**

**Dictionary of Technical Definitions and Abbreviations**

**Change Log**

<b>Issue</b>	<b>Date</b>	<b>Author</b>	<b>Change</b>
v1	CONTRACT		
v2	29/06/2009	ARJS	Addition of text changes from the following RFTAs:  00022                      00198



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## 1 DEFINITION OF TERMS

Term	Definition
Above Floor Level (AFL)	Height parameter measured vertically upwards from the internal floor level.
Above Rail Level (ARL)	Height parameters for the Set shall be measured vertically from the top of the rail.
Access Road 1	Access Road 1 described in clause 3.1.4.5 of the RailCorp Maintenance Facility Specification.
Access 1 Security	The level of locked security access on the Set that allows access to equipment by Presentation Staff, Crew, and RailCorp and PPP Co Engineers and Maintenance Staff.
Access 2 Security	The level of locked security access on the Set that allows access to equipment by Crew and RailCorp and PPP Co. Engineers and Maintenance Staff.
Access 3 Security	The level of locked security access on the Set that allows access to equipment only by RailCorp and PPP Co. Engineers and Maintenance Staff.
Accreditation Plan	Means the Accreditation Plan referred to in clause 3.3 of the Contract Management Requirements.
Active Crew Cab	A Crew Cab in which the Driver or Guard has inserted and operated a key in the relevant Workstation to enable Control Power. Not more than one Crew Cab shall be an Active Driver's Cab and not more than one Crew Cab shall be an Active Guard's Cab in a Set under normal conditions.
Active Driver's Cab	An Active Crew Cab in which the key or key card has been inserted into the Driver's Workstation.
Active Guard's Cab	An Active Crew Cab in which the key or key card has been inserted into the Guard's Workstation.
Active Driver's Workstation	The first Driver's Workstation in which the Driver has inserted and operated a key or a key card, activating the Driver's controls. Only one Driver's Workstation shall be active in a Set.
Active Guard's Workstation	The first Guard's Workstation in which the Guard has inserted and operated a key or key card, activating the Guard's controls. Only one Guard's Workstation shall be active in a Set. See also requirements for Repeater Guards.
Allocated Space	Space provided for use by Passengers in wheelchairs as defined in Disability Standards for Accessible Public Transport.

<b>Term</b>	<b>Definition</b>
Amenities Area(s)	Means the Amenities Area(s) referred to in clause 4.1.8 of the RailCorp Maintenance Facility Specification.
Auburn Masterplan	The Auburn Masterplan for the Maintenance Facility and Future RailCorp Facility contained in Attachment 1 of the RailCorp Maintenance Facility Specification.
Audible Indication Device	The device that indicates to the Guard by means of audible tones that the Passenger bodyside doors are closed and locked and the relevant safety systems are activated.
Automatic Brake	A wheel or disc based Friction braking system controlled by Brake Pipe pressure.
Automatic Train Control (ATC)	A system that combines ATO and ATP with a control system to provide automatic control and regulation of Sets.
Automatic Train Protection (ATP)	A system that provides continuous authority protection to prevent train passing red signals or exceeding defined speed limits.
Availability	The Availability referred to in clause 4.10.2 of the Contract Management Requirements.
Bolster (Car)	Car structural member that may be used to transfer the forces between the bogie and the Car body Side Sills / Sole Bars.
Brake Pipe	Air pipe connecting the Braking System along the length of the Set and is used both for continuity proving and brake control.
Business Continuity Management	A process framework that ensures in the event of a disaster the business can continue to function.
Business Continuity Management Plan	A set of detailed plans specific to each business area to ensure business continuity.
Bypass Road 1	Bypass Road 1 described in clause 3.1.4.4 of the RailCorp Maintenance Facility Specification.
Cab	A secure space within the Set used by a Crew member to carry out control activities.
Cant Rail	A longitudinal structural member between the roof and the bodyside.
Car Parking	Means the Car Parking referred to in clause 3.1.6 of the RailCorp Maintenance Facility Specification.

Term	Definition
Car Turning Loop	Designated rail track for use by MainTrain and PPP Co for turning or temporarily storing cars. The Car Turning Loop is a track running through the MainTrain site, the Maintenance Site and the adjoining Future RailCorp Facility. It is electrified where it passes through the Maintenance Site in order to allow the movement of trains from the RailCorp running roads through these areas under their own power.
Certificate of Readiness	A certificate advising RailCorp that the Set complies with the Minimum Standards after being maintained or stabled and is able to remain in service for the specified period.
Circuit Breaker	A resettable overcurrent protective device that operates (trips) after a certain current level is exceeded for a certain length of time.
City Underground	That part of the City Rail system within Sydney city centre that is underground including all tracks from Central to Central via Circular Quay.
CityRail	Brand name for RailCorp's greater Sydney area train and bus services.
Closed Circuit Television (CCTV)	A system of cameras and monitoring equipment that transmits images over a closed circuit for security monitoring purposes. The system does not receive an outside signal or feed, nor does it broadcast the images.
Clyde Down Yard	The sidings positioned beside MainTrain on the down side of the Main Line.
Commissioning Test Plan	The Commissioning Test Plan is referred to in clause 7.6 of the Contract Management Requirements.
Common Telemetry Infrastructure Platform	General purpose Set-borne ICT system developed by RailCorp which includes the ability to transmit telemetry and control other Set-borne systems, as referred to in clause 3.5.6 of the RailCorp Train Performance Specification.
Communications Management Plan	The Communications Management Plan referred to in clause 2.2 (n) of the Contract Management Requirements.
Compliance Management Plan	The Compliance Management Plan referred to in clause 2.11 of the Contract Management Requirements.
Condemning Limit	The condition or nominated point at which a component, part or subassembly requires replacement due to Failure or excessive wear, or the inability to meet its specified performance.
Configuration	The interrelated functional and physical characteristics of a product defined in the Product Configuration Information.

Term	Definition
Configuration Baseline	At any point in time, the approved Product Configuration Information that establishes the characteristics of a product at that point in time that serves as a reference for activities throughout the life cycle of the product.
Configuration Database	A repository of information for describing the Product Configuration Information for the deliverables in the Contract.
Configuration Item	An entity within a Configuration that satisfies an end use function.
Configuration Management System	The management processes and procedures which permit the requirements of the Configuration Management Plan to be achieved.
Configuration Register	The Configuration Register referred to in clause 5.1.1 (e) of the Contract Management Requirements.
Consumable Spares	Spare parts that are intended to be disposed of after use without being periodically maintained or overhauled.
Contractor's Work Breakdown Structure (CWBS)	The Contractor's Work Breakdown Structure (CWBS) referred to in clause 2.7 of the Contract Management Requirements.
Controls	The equipment provided for a Driver or Guard to enable a Set to be operated.
Crew	Consists of a Driver and/or Guard. For the purposes of ergonomic analysis, the anthropometric range for the Crew shall be from the 5th percentile Australian female to the 97.5th percentile Australian male inclusive.
Crew Amenities Area	The Crew Amenities Area described in clause 4.1.9 of the RailCorp Maintenance Facility Specification.
Crew Cab	Refers to the Driver's Cab and/or Guard's Cab and is used in a context where requirements are applicable to both.
Crew Intercom (CI)	A system that allows the Crew to communicate with each other between the Crew Cabs and with Passengers via the Passenger Emergency Intercom (PEI).
<b><u>Crew Override</u></b>	<b><u>The control facility provided to enable Crew to inhibit an EDR Stage 2 Activation after an EDR Stage 1 Activation.</u></b>
<b><u>Crew Override Cancel</u></b>	<b><u>The control facility provided to enable Crew to cancel the Crew Override facility</u></b>
Crew Room	Means the Crew Room referred to in clause 4.1.11 of the RailCorp Maintenance Facility Specification.

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Term	Definition
Crew Workstation	Refers to the area in the Crew Cab at which the Crew sit to operate the train. The Crew Workstation houses the systems and controls used to operate the Set.
Critical Design Safety Assurance Report	The Critical Design Safety Assurance Report referred to in clause 3.3.2(c) of the Contract Management Requirements.
Crush Load	The loading condition of a Set with Crew on board, all systems operational, seating capacity full and 6 Passengers per m <sup>2</sup> of floor area standing. Also referred to as AW3.
Cumulative MDBI	Reliability growth over time expressed as the cumulative kilometres travelled by the Operational Sets since Practical Completion of Set 1 divided by the number of PPP Co Related Incidents occurring since Practical Completion of Set 1.
Current Configuration Status	The Product Configuration Information at the current time.
Daily Cleans	As defined in the Train Presentation Manual.
Daily Schedule of Call-Ins	A list of Sets to be delivered each day to the Maintenance Facility by RailCorp prepared a week in advance.
Data Link	ICT communication channel for the bi-directional exchange of data between ICT systems, as referred to in Clause 11.13 of the RailCorp Train Performance Specification, and clause 2.2.3 of the RailCorp Through Life Support Specification.
Decant Area	An area for the purpose of emptying effluent from Other Sets (Interurban trains) which are fitted with controlled emission toilet systems.
Delivery Phase Progress Reports	The Delivery Phase Progress Reports referred to in clause 2.10.3 of the Contract Management Requirements.
DS Audio System	The DS Audio System referred to in clause 2.5 of the RailCorp Simulator Specification.
DS Procedural Trainer	The DS Procedural Trainer referred to in clause 2.8 of the RailCorp Simulator Specification.
DS Radio/Intercom System	The DS Radio/Intercom System referred to in clause 2.6 of the RailCorp Simulator Specification.
DS Vision System	The DS Vision System referred to in clause 2.3 of the RailCorp Simulator Specification.



<b>Term</b>	<b>Definition</b>
Deadman System	A Subsystem used on RailCorp trains to detect the presence of a Driver. The term is in common use within RailCorp and will progressively be replaced by the term Operator Enable System. See also Driver Detection Devices and Operator Enable System.
Decommissioning of the Sets Sub-plan	The Decommissioning of the Sets Sub-plan referred to in clause 8.4.4 of the Contract Management Requirements.
Degraded	A piece of equipment or a Set shall be in a Degraded state when it does not possess its full functionality.
Delivery Testing	The Delivery Testing referred to in clause 4.12.6 (b) of the Contract Management Requirements.
Design Life	The lifetime of the component or system, in which it shall be fully capable to specification if maintained correctly and assuming the specified duty cycle has not been unreasonably exceeded.
Design Overspeed	A speed that is in excess of the Maximum Operational Speed and shall only apply to specific tests.
Design Review Process	The stages of the Technical Review process covering the System Definition Review, the Preliminary Design Review and the Critical Design Review.
Destination Indicator (DI)	A visual display system used to provide Passengers with the timetabled destination and route information of the Set.
Development Testing	The Development Testing referred to in clause 4.12.3 of the Contract Management Requirements.
Diagram Book	A book used by Crew which provides information on train route and timing.
Digital Output Display	The Digital Output Display referred to in clause 2.4.9 of the RailCorp Simulator Specification.
Digital Train Radio (DTR)	A radio communication system fitted to the Set that uses digital pulses to send and receive information.
Digital Voice Announcement (DVA)	An announcement that is recorded digitally for use on the Digital Voice Annunciator.
Digital Voice Annunciator (DVA)	A system that audibly advises Passengers of the timetabled destination and route information of the Set.
Door Warning Device (DWD)	A device provided to give audible warning to Passengers of door movement.

Term	Definition
Down Relief	The rail track located north of the Maintenance Facility and running east to west of the Maintenance Site between 53 and 702 points.
Download	The movement of data (or a copy of the data) out of an ICT system.
Draftgear	The coupling system, including couplers, drawbars and energy absorbing units employed for mechanically joining Cars or Sets together
Driver	RailCorp staff on a train who carries out the driving and operation of the train. The Driver normally operates from an Active Driver's Cab at the front of the Set.
Driver Detection Devices	This term is equivalent to the Deadman System and will be replaced by the term Operator Enable System.
Driver Safety System	Equipment for bringing a Set to a stop, consisting of Operator Enable System, Trip Gear, control governor and Vigilance Control.
Driver Trainer	RailCorp staff whose role requires them to ride in the active driving cab with a Driver undergoing training, and observe the operation and control of the train. May take notes for future reference. Might intervene in the control of the train under certain circumstances.
Driver Training Session	The Driver Training Session referred to in clauses 2.4.9 and 2.7 of the RailCorp Simulator Specification.
Driver's Cab	A Cab fitted at the outer end of the Set with facilities for a Driver and a Guard to carry out their duties.
Driver's Simulator (DS)	The Driver's Simulator (DS) referred to in clause 2 of the RailCorp Simulator Specification.
Driver's Workstation	The desk in front of and around the Driver on which the controls are arranged.
Driver's Display Unit (DDU)	A display unit mounted in the Crew Control Workstation used to access the Train Operating System, information display, alarm monitoring and data entry.
Effective Force	Force as nominally experienced by a Passenger during door operation, as defined in clause D.2.3 and Figure D.1 – Parameter Relation in Annex D of standard EN 14752 "Railway Applications – Bodyside Entrance Systems".
Electric Brake	Equipment fitted to the Set that allows Electric Braking.

Term	Definition
Electric Braking	The use of the traction package to decelerate the Set using the traction motors as generators either returning the power generated to the supply system or expelling it as heat via a resistor bank.
Electrical Auxiliary Power Supply (EAPS)	Equipment fitted to the Set that provides the on-board auxiliary electrical equipment and systems with power.
Electrolysis Protection	Protection against the electrolytic corrosion effects caused by stray currents in the 1500 V dc OHW supply system.
Electrolysis Protection System	The Electrolysis Protection System referred to in clause 3.1.3 of the RailCorp Maintenance Facility Specification.
Emergency Brake	Maximum application of the Automatic Brake system, which shall be pneumatically applied via venting the Brake Pipe to atmosphere.
Emergency Door	A Passenger bodyside door that is a designated Passenger egress point in emergency situations.
Emergency Door Release (EDR)	A control fitted to a door to enable it to be opened in emergency situations and with a loss of emergency power.
RFTA 00198	<u>Emergency Door Release (EDR) Stage 1 Alarm</u> An EDR Stage 1 alarm to crew will consist of: a) A flashing light on the override panel, b) the internal CCTV system will show the activated EDR and; c) a PEI alarm accompanied by an additional 2 second alarm warning tone.
RFTA 00022	<u>Emergency Door Release (EDR) Stage 1 Activation</u> The removal of the EDR sealing device.
RFTA 00198	<u>Emergency Door Release (EDR) Stage 2 Alarm</u> An EDR Stage 2 alarm to crew will consist of: a) an audible alarm (new tone required) and; b) a visual indicator on the crew override panel.
RFTA 00022	<u>Emergency Door Release (EDR) Stage 2 Activation</u> The operation of an active EDR control.
RFTA 00198	<u>Emergency Door Release (EDR) Stage 1 Time Delay (T1)</u> The delay period initiated at individual EDR devices after an EDR Stage 1 Activation, and during which an EDR Stage 2 Activation shall be inhibited

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Term	Definition
<u>Emergency Door Release (EDR) Override Time Delay (T2)</u>	<u>The delay period initiated after Crew Override has been enabled, affecting all door EDR devices (except Crew Bodyside and Intercar door EDR devices), and during which an EDR Stage 2 Activation is inhibited.</u>
Emergency Operation Stage 1 Lighting	The Set lighting state referred to in clause 9.10.1.1 of the RailCorp Train Performance Specification.
Emergency Operation Stage 2 Lighting	The Set lighting state referred to in clause 9.10.1.2 of the RailCorp Train Performance Specification.
Emergency Passenger Stage 1 Lighting	The Set Passenger lighting state referred to in clause 9.10.1.3 of the RailCorp Train Performance Specification.
Emergency Passenger Stage 2 Lighting	The Set Passenger lighting state referred to in clause 9.10.1.3 of the RailCorp Train Performance Specification.
Emergency Redundancy Mode	When the Electrical Auxiliary Power Supply potential power output is less than 100 % per Set.
Emergency Train Recovery Unit	RailCorp's internal team responsible for the safe recovery of rolling stock that has been involved in an Incident. The Emergency Train Recovery Unit comprises the personnel and their associated recovery equipment.
End Saloon	Enclosed Passenger area at the end of a Car.
Environment Controller	The Environment Controller referred to in clause 4.3.11 of the RailCorp Simulator Specification.
Environmental Management Plan	The Environmental Management Plan referred to in clause 2.9 of the Contract Management Requirements.
Environmental Management System	The system established under the Environmental Management Plan for the assessment, management and control of environmental impacts.
EP Brake	Electro-pneumatic control of the friction brake.
Equipment Examiner	A RailCorp worker who carries out maintenance work on "trains in service".
Equipment Failure	An Equipment Failure occurs when the Set or any of its components is unable to perform the functions allocated to it (see also System Failure).
European Train Control System	Means the European Train Control System referred to in clause 13.9.1 of the RailCorp Train Performance Specification.
Event Recorder (ER)	A self-contained unit fitted to the Set to accurately record selected operational data of the train pertinent to investigation of abnormal events.

<b>Term</b>	<b>Definition</b>
Extra Low Voltage	RailCorp's preferred voltage levels are defined in FE 117. Where the term Extra Low Voltage is used in the RailCorp Train Performance Specification it shall be considered to be indicative only.
Fail-safe	A system which is self-proving (i.e. signal required to prove safe) and whose functional loss requires at least two independent simultaneous subsystem failures to cause an unsafe state. Any subsystem failure shall be self-annunciating.
Failure	The lack of ability of a component, equipment, sub system, or system to perform its intended function as designed. Failure may be the result of one or many faults (definition from ISO/CD 10303-226 Industrial automation systems and integration – product data representation and exchange).
Failure Modes, Effects and Critically Analysis (FMECA)	The Failure Modes, Effects and Criticality Analysis (FMECA) referred to in clause 4.8.3 of the Contract Management Requirements.
Failure Reporting and Corrective Action System (FRACAS)	The Failure Reporting and Corrective Action System (FRACAS) referred to in clause 4.12.11 of the Contract Management Requirements.
Fault	An abnormal condition or Defect at the component, equipment, or sub-system level which may lead to a failure (definition from ISO/CD 10303-226 Industrial automation systems and integration – product data representation and exchange).
Fault Controller	The Fault Controller referred to in clause 4.3.3 of the RailCorp Simulator Specification.
Fault Task	The Fault training tasks required of each Trainee referred to in clause 5.2.3 of the RailCorp Simulator Specification.
Fencing and Security	The Fencing and Security systems referred to in clause 3.1.7 of the RailCorp Maintenance Facility Specification.
Fleet Management	The grouping of management activities supporting the rolling stock fleet, as referred to in Clause 2.2.3 of the RailCorp Through Life Support Specification.
Fleet Management Data Link	Data Link connecting the RailCorp shore-based fleet management systems with the PPP Co shore-based fleet management systems, as referred to in Clause 2.2.3 of the RailCorp Through Life Support Specification.

Term	Definition
Fleet Management Gateway	Business-to-business ICT gateway between RailCorp and PPP Co shore-based systems. Comprises a Transaction Model, Integration Platform, and Data Link, as referred to in Clause 2.2.3 of the RailCorp Through Life Support Specification.
Fleet Management Transaction Model	The Fleet Management Transaction Model referred to in clause 2.2.3(c) of the RailCorp Through Life Support Specification.
Frequently	Greater than three (3) times per day.
Friction Braking	The use of friction to decelerate a Set, using brake shoes or pads applied to the wheels or to discs.
Full Service Brake	Maximum application of the Service Brake.
Future RailCorp Facility	The area of land represented on the Auburn Masterplan in Attachment 1 of the RailCorp maintenance Facility Specification reserved for future development by RailCorp.
GS Audio System	The GS Audio System referred to in clause 3.3 of the RailCorp Simulator Specification.
GS Procedural Trainer	The GS Procedural Trainer referred to in clause 3.6 of the RailCorp Simulator Specification.
GS Radio/Intercom System	The GS Radio/Intercom System referred to in clause 3.4 of the RailCorp Simulator Specification.
GS Vision System	The GS Vision System referred to in clause 3.2.4 of the RailCorp Simulator Specification.
General Purpose Outlet (GPO)	Australian industry-standard, 3-pin, switched electrical socket, supplying 240VAC 50 Hz electrical power for loads drawing up to 10 amps.
Graffiti Tag	A single signature/word/symbol.
Graffiti Tag Count	The quantum of Graffiti Tags, e.g. if there are 10 Graffiti Tags on a Car seat or wall, the Graffiti Tag Count is 10.
Graphical Output Display	The Graphical Output Display referred to in clauses 2.4.7 and 2.4.8 of the RailCorp Simulator Specification.
Guard	RailCorp staff on a Passenger train who carries out safeworking duties and is responsible for the safety and supervision of Passengers. The Guard normally operates from a Workstation in an Active Guard's Station in a Cab remote from the Driver, near the centre of the Set. Under some conditions the Guard may need to operate from the same Cab as the Driver or a Cab at the rear of the Set.

Term	Definition
Guard Trainer	RailCorp staff whose role requires them to ride in the Active Guard's Cab with a Guard undergoing training. Observes the performance of the Guard and acts as a second check that Passengers are clear of doors prior to the Guard giving authority to proceed.
Guard's Cab	A Cab fitted at the centre of the Set with facilities for Guards to carry out their duties.
Guard's Simulator (GS)	The Guard's Simulator (GS) referred to in clause 3 of the RailCorp Simulator Specification.
Guard's Workstation	Location at which the Guard will carry out assigned functions; may be in a shared Cab with the Driver or in a dedicated Guard's Cab.
Headshell	That part of a coupler or intercar jumper that encloses the electrical connectors and protects them from accidental or environmental damage.
Headstock	The main transverse underframe structure at the ends of the Car.
Heating, Ventilation and Air Conditioning (HVAC) Sub-system	The HVAC Sub-system consists of air cooling, heating and dehumidifying equipment and associated fans, ducts, controls, indicators, alarms and services which together provide conditioned air to the occupants of each Car, including Passengers and Crew.
Help Desk	The 24-hour by 7 day support facility to be supplied by PPP Co to RailCorp to provide assistance in the event of any incident on the network impacted by or upon a PPP Co Set.
High Speed Circuit Breaker (HSCB)	A Circuit Breaker in the Main Power Supply circuit that protects the OHW equipment in the event of overcurrent.
High Speed Passenger Train	A High Speed Passenger Train as described in RSU 160 figure 1.
High Voltage	RailCorp's preferred voltage levels are defined in FE 117. Where the term High Voltage is used in the RailCorp Train Performance Specification it shall be considered to be indicative only.
Human Factors Integration Plan	The Human Factors Integration Plan referred to in clause 2.14 of the Contract Management Requirements.
Human Resources Plan	The Human Resources Plan referred to in clause 2.6 of the Contract Management Requirements.
Hunting	Side to side movement of the Car without significant yaw.

Term	Definition
Implementation Safety Assurance Report (Interim)	The Implementation Safety Assurance Report (Interim) referred to in clause 3.3.2(e) of the Contract Management Requirements.
Implementation Safety Assurance Report (Revenue Operation)	The Implementation Safety Assurance Report (Testing and Commissioning) referred to in clause 3.3.2(f) of the Contract Management Requirements.
Implementation Safety Assurance Report (Testing and Commissioning)	The Implementation Safety Assurance Report (Testing and Commissioning) referred to in clause 3.3.2(d) of the Contract Management Requirements.
Incident Information Management System	The Incident Information Management System referred to used in clause 3.7(a) of the Through Life Support Specification, Interface Protocols.
Incident Management	The process of managing Incidents as described in RailCorp's Incident Management Framework.
Incident Response Plan	The Incident Response Plan referred to in clause 9.4.7 of the Contract Management Requirements.
Independent Verification Plan	The Independent Verification Plan referred to in clause 4.4.10 of the Contract Management Requirements.
In-service	A Set that has passed Train Preparation and is taken out of a stabling area or the Maintenance Facility.
Instability	In the context of Set bogies, this refers to uncontrolled linear and/or rotational oscillations of a bogie in any plane at frequencies not less than 0.5 Hz resulting in accelerations of the Car body above bogie centres of 0.1g, sustained for more than 2.5 seconds.
Instructor	Person co-ordinating and managing the training undertaken on the Simulators.
Insurance Spares	Spare parts procured by PPP Co for the purpose of meeting the turnaround time of returning Sets to service after any accident or incident.
Integration Platform	A piece of ICT infrastructure that provides rules-based tools to process, manipulate and distribute data, as referred to in clause 2.2.3 of the RailCorp Through Life Support Specification.
Integration Testing	The Integration Testing referred to in clause 4.12.4 of the Contract Management Requirements.
Intercom	System used to provide two way on Set voice communications.



Term	Definition
Interface Coordination Plan	As defined in Australian Standard AS 4192.5 – Railway System Management Part 5, Operational Systems (Section 2).
Interface Management Plan	The Interface Management Plan referred to in clause 2.13 of the Contract Management Requirements.
Jerk	The time rate of change of acceleration, stated in terms of metres per second per second per second, which is abbreviated to m/s <sup>3</sup> .
Kinematic Rolling Stock Outline	The outline swept by the Static Rolling Stock Outline under dynamic conditions as specified in RSU 110.
Lateral	Perpendicular to the direction of the track in the horizontal plane.
Life Cycle	The series of phases or events that constitute the total existence of a system or physical component, from the start of concept planning until the product is finally disposed of.
<div data-bbox="110 922 284 1093" style="border: 1px solid black; padding: 5px; display: inline-block;">RFTA 00198</div> <u>Local Alarm</u>	<u>The Local EDR alarm is an audible alarm in the passenger area immediately adjacent to the EDR which will be of sufficient loudness to attract attention of surrounding passengers to the opened EDR sealing device.</u>
Longitudinal	Parallel to the direction of the track along the centre line of the Car.
Low Voltage	RailCorp's preferred voltage levels are defined in FE 117. Where the term Low Voltage is used in the RailCorp Train Performance Specification it shall be considered to be indicative only.
Main Power Supply (MPS)	Equipment fitted to the Set which provides the on-board train equipment and systems with power collected from the Overhead Wire.
Maintainability	The relative ease and economy of time and resources with which an item can be retained in, or restored to, a specified condition when maintenance is performed by personnel having specified skill levels, using prescribed procedures and resources, at each prescribed level of maintenance and repair. In this context, it is a function of design (definition from MIL-HDBK-470A Designing and Developing Maintainable Products and Systems).
Maintainability Programme	The Maintainability Programme referred to in clause 4.9 of the Contract Management Requirements.
Maintainer	A PTS Operator Option as referred to in clause 5.5.1 of the RailCorp Simulator Specification.

Term	Definition
Maintenance Building	The Maintenance Building described in clause 4.1.1 of the RailCorp Maintenance Facility Specification.
Maintenance Centre	A location where trains can be maintained, which is operated and managed by RailCorp.
Maintenance Facility Asset Management Plan	The Maintenance Facility Asset Management Plan referred to in clause 9.11 of the Contract Management Requirements.
Maintenance Facility Handover Sub-plan	The Maintenance Facility Handover Sub-plan referred to in clause 8.4.3 of the Contract Management Requirements.
Maintenance Management Information System (MMIS)	The Maintenance Management Information System referred to in clause 2.7.6 of the RailCorp Through Life Support Specification.
Maintenance Roads	Electrified elevated rail tracks with associated work platforms, services and equipment that are located within the Maintenance Building and designed for the inspection, servicing and repair of the Sets and the Other Sets. The Maintenance Roads are also designed to be suitable for use in the inspection, servicing and repair of the existing electric cars in the RailCorp fleet.
Maintenance Staff	RailCorp staff whose role requires them to access Sets and the Other Sets for routine and breakdown maintenance purposes.
MainTrain Siding	A length of trackwork that functions as a rail siding for the use of MainTrain and located within the MainTrain leased area at Auburn.
Major Cleans	As defined in the RailCorp Train Presentation Manual.
Major Inspection	The main inspection used by PPP Co to ensure that the Sets comply with the Minimum Standards. The Major Inspections would normally be synchronised with servicing requirements and Component Change Outs.
Major Subsystem	The Subsystems referred to in clause 4.6.2 of the Contract Management Requirements.
Major Vandalism	Vandalism that will require more than 10 man days of effort to repair or will consume more than the current available stock of Spare parts to repair.
Manufacturing Plant	The Manufacturing Plant described in clause 6.3 of the RailCorp Maintenance Facility Specification.
Master Configuration Status List	The Master Configuration Status List referred to in clause 5.1.1 (d) of the Contract Management Requirements.
Master Control Key	The key that operates the Master Control Switch as referred to in clause 7.3.3.1 of the RailCorp Train Performance Specification.

Term	Definition
Master Control Switch	That part of the Master Controller described in clause 7.3.3.1 of the RailCorp Train Performance Specification.
Master Controller	Main driving control, which provides full control over the direction, acceleration and deceleration of the Set.
Maximum Operational Speed	The maximum speed at which the Set can operate.
Mean Distance between Incidents	The measure of reliability expressed as the "Mean Distance between Incidents" (MDBI) where "D" is the distance travelled in kilometres and "I" is a PPP Co Related Incident as defined in the Project Contract.
Mean Time to Maintain	The time between withdrawal from normal operation for maintenance to be undertaken and restoration of normal operation. This includes the duration of the maintenance activities themselves and the time for recovery of normal operation.
Mean Time to Repair	The time between the occurrence of a failure and restoration of normal operation. This includes the duration of the failure itself, the time taken to rectify the failure and the time for recovery of normal operation.
Mechanical Control	<p>A section located within RailCorp's Rail Management Centre, which:</p> <ul style="list-style-type: none"> <li>a) arranges for pre-positioning of Sets for maintenance;</li> <li>b) receives and logs Defects reported by RailCorp Crew;</li> <li>c) provides advice to the Crew to resolve technical difficulties;</li> <li>d) calls out Equipment Examiners to attend to defective Sets; and</li> <li>e) nominates a location for defective Sets worked out of service.</li> </ul>
Millennium Train	The fleet of suburban 4 <sup>th</sup> generation trains (M cars) supplied by EDI Rail that entered service from 2002.
Miniature Circuit Breaker (MCB)	A Circuit Breaker in the Control Power or auxiliary power circuits that protects against overcurrent in an individual circuit.
Minor Derailment	A derailment which occurs at low speed with light vertical wheel loads (i.e. Cars not fully loaded) and there are minimal markings to wheel flanges or treads with no evidence of heavy impact on rails, points, crossovers, check rails and other track components.
Minor Vandalism	Vandalism that is not Major Vandalism.

Term	Definition
Mobile Version Simulator	The Mobile Version Simulator referred to in clause 7.1 of the RailCorp Simulator Specification.
Mock-up	Full size representations (mock-ups) of elements of the train as detailed in clause 12 of the RailCorp Train Performance Specification.
Motion System Version Simulator	The Motion System Version Simulator referred to in clause 7.2 of the RailCorp Simulator Specification.
Near-real-time	With respect to ICT systems, refers to data that is received with a delay of less than 3 seconds after the moment of its first creation.
Nightsafe	A state in which the access to a Car placed in Nightsafe mode is limited such that Passengers are prohibited from entering the Car but may exit the Car via the intercar access doors.
Normal	The Set's state when it is ready to enter or in service.
Not into Service (NIS)	A defect must be fixed before the Set enters or returns to service (definition from Performance Operating Standards).
OHS&R Plan	The plan referred to in clause 2.5 of the Contract Management Requirements.
Operational Speed Range	The normal range of speeds achieved by the Set during use, between 0 km/h and the maximum operational speed.
Operational Testing	The Operational Testing referred to in clause 4.12.9 of the Contract Management Requirements.
Operations Mobilisation Sub-plan	The Operations Mobilisation Sub-plan referred to in clause 8.3.2 of the Contract Management Requirements.
Operations Standards Manager	RailCorp staff whose role requires them to ride in the active Driver's Cab with the Driver and observe the operation and control of the Set. May take notes for future reference.
Operator	In the context of the RailCorp Simulator Specification, means the Operator of a PTS session.
Operator Enable Handle	That part of the Operator Enable System operated by the use of the hand by the Driver.
Operator Enable Pedal	That part of the Operator Enable System operated by the use of the foot by the Driver.

Term	Definition
Operator Enable System	<p>A Crew-controlled safety device, when powering, braking or coasting, which activates an Emergency Brake application in the event of the Driver failing to apply the required force to the control. The Driver shall use his/her hand (by means of the Operator Enable Handle) or foot (by means of the Operator Enable Pedal) for its operation.</p> <p>The system was formerly known as the Deadman System or the Driver Detection Device and may still be referred to as such in various reference documentation, such as standards.</p>
Out Depot	A location where Sets can be stabled (including Maintenance Centre sidings), which is operated and managed by RailCorp.
Out of Course Maintenance	Unscheduled Maintenance work arising from advice of defects in service or inspection activities that is not normally expected to be included in the scope of inspections or overhauls.
Overhead Traction Power System	The Overhead Traction Power System referred to in clause 3.1.5 of the RailCorp Maintenance Facility Specification.
Overhead Wire (OHW)	The wiring system located above the track that provides a nominal 1500 V DC power supply to the train.
Park Brake	A brake that is applied to hold the train stationary.
Part-Task Simulator (PTS)	The virtual Set training tool referred to in clause 5 of the RailCorp Simulator Specification.
Passenger	A person other than the Driver, Guard or other member of RailCorp staff working on a Set. For design and testing purposes, "Passengers" shall include from the 5th percentile Australian female to 95th percentile Australian male inclusive. The average mass of a Passenger shall be assumed to be 70 kg. The visual acuity of Passengers shall be assumed to be 6/18.
Passenger Amenity KPI Items	The items listed under Passenger Amenity in the Performance Operating Standards which have a KPI impact.
Passenger Emergency Help	The Passenger Emergency Help referred to in the TLS Operating Standards.
Passenger Emergency Intercom (PEI)	Intercom device provided to enable Passengers to contact crew members.

Term	Definition
Peak Force	Maximum force experienced during door operation, as defined in clause D.2.2 and Figure D.1 – Parameter Relation in Annex D of standard EN 14752 “Railway Applications – Bodyside Entrance Systems”.
Power/Brake Controller	That part of the Master Controller described in clause 7.3.3.3 of the RailCorp Train Performance Specification.
PPP Co Data Link	The Set-borne remote access point allowing remote interaction between PPP Co Set-borne and PPP Co shore-based systems, as referred to in clause 11.13 of the RailCorp Train Performance Specification.
PPP Co MMIS	PPP Co’s Maintenance Management Information System.
PPP Co Office Area	The PPP Co Office Area referred to in clause 4.1.5 of the RailCorp Maintenance Facility Specification.
Presentation	Train state that allows presentation staff to access the train and carry out presentation (cleaning) operations.
Presentation Items	The Presentation Items referred to in the Performance Operating Standards.
Presentation Staff	<p>RailCorp staff whose role requires them to clean the Sets. Presentation Staff includes Carriage Cleaners and Rover Cleaners.</p> <p>Carriage Cleaners will access the Set normally when Stabled in order to clean Passenger and Crew Compartments.</p> <p>Rover Cleaners will ride the Set when in service moving through the Passenger Compartments of the Set clearing litter etc.</p>
Pressure	(Air) Gauge pressure, i.e. pressure above ambient atmosphere pressure.
Primavera	A proprietary project scheduling and management software application supplied by Primavera Systems Inc.
Principal Driver	RailCorp staff whose role requires them to ride in the Active Crew Cab with the Driver and observe the operation and control of the Set. May take notes for future reference.
Principal Guard	RailCorp staff whose role requires them to ride in the Active Guard’s Cab with the Guard and observes the performance of the Guard. May take notes for future reference.
Priority Seating	Seating which is allocated to elderly, sick or disabled people.

Term	Definition
Product Configuration Information	The documentation requirements for product design, realisation, verification, operation and support.
Production Testing	The Production Testing referred to in clause 4.12.6 (a) of the Contract Management Requirements.
PTS Session	The PTS Session referred to in clause 5.3.6 of the RailCorp Simulator Specification.
PTS Training Session	The PTS Training Session referred to in clause 5.3 of the RailCorp Simulator Specification.
Public Address (PA)	A system that audibly transmits information and messages to Passengers.
Qualification Testing	The Qualification Testing referred to in clause 4.12.5 of the Contract Management Requirements.
Quality Manual	A Quality Manual as defined in Australian/New Zealand Standard AS/NZS ISO 9001 <i>Quality management systems – Requirements</i> .
R, S & L Cars	The fleet of non-air conditioned suburban 2 <sup>nd</sup> generation trains supplied by Goninan and Comeng that entered service from 1972.
Rail Commander	A nominated person with the responsibility to liaise with Emergency Services and manage the rail industry response at an incident site (definition from Train Operating Manual).
Rail Management Centre (RMC)	The centre used by RailCorp for the control of trains on the Rail Network.
Rail Network	The RailCorp Network.
RailCorp Data Link	The Set-borne remote access point grouping for remote system interactions with RailCorp Set-borne systems, as referenced in clause 3.5.4.1 of the RailCorp Train Performance Specification.
RailCorp Incident Management Framework	The Incident Management Framework developed as part of RailCorp's Safety Management System.
RailCorp Maintenance Centre	The RailCorp Maintenance Centre referred to in clause 2.3.9 of the RailCorp Through Life Support Specification.
RailCorp Maintenance Facility Reference Design	The RailCorp Maintenance Facility Reference Design contained in Attachment 6 of the RailCorp Maintenance Facility Specification.
RailCorp MMIS	RailCorp's Maintenance Management Information System.

Term	Definition
RailCorp Office Area	The RailCorp Office Area described in clause 4.1.10 of the RailCorp Maintenance Facility Specification.
RailCorp Set-borne Systems	Systems residing on the Set developed by RailCorp.
RailCorp Site Construction Office	The RailCorp Site Construction Office referred to in clause 3.1.15 of the RailCorp Maintenance Facility Specification.
Railway Fog Signals	Audible, single-use explosive warning devices that fastens to the rail head ("detonators") and operated by the Sets wheel tread.
Real-time	With respect to ICT systems, refers to data that is received with negligible delay after the moment of its first creation. Negligible delay means the stricter of either: a time delay that is so very small as to not potentially impact any supporting business or ICT processes, or a time delay of no more than 1 second.
Reimbursable Insurance Spare Parts	Insurance spare parts procured by PPP Co for the purpose of meeting the turnaround time of returning Sets to service after a RailCorp caused accident or incident.
Reliability	The probability that an item can perform its intended function for a specified interval under stated conditions (definition from MIL-STD-721C).
Reliability Demonstration	The Reliability Demonstration referred to in clause 4.8.4 of the Contract Management Requirements.
Reliability Demonstration Plan	The plan that describes the processes and procedures to be used for the Reliability Demonstration.
Reliability Growth	A measure of the improvement in reliability of the Sets expressed as a 12 month rolling average MDBI. This is to be calculated as the total kilometres travelled by the Operational Sets in the previous 12 months divided by the total number of PPP Co Related Incidents in the same period.
Reliability Plateau Threshold	The point on the reliability curve where the Reliability Growth equals 98% of the Target MDBI expressed as the distance travelled (cumulative kilometres) at that point.
Reliability Predictions Report	The report documenting the results of the Reliability modelling and prediction referred to in clause 4.8.2 of the Contract Management Requirements.
Reliability Programme	The Reliability Programme referred to in clause 4.8 of the Contract Management Requirements.
Repeater Guard	A second Guard who may travel on a Set in a centre or rear Cab to assist the primary Guard in carrying out station duties.



Term	Definition
Revenue Operation	Operation of the Sets in Passenger-carrying service.
Risk Management Plan	The Risk Management Plan referred to in clause 2.3 of the Contract Management Requirements.
Risk Register	The Risk Register referred to in clause 2.4 of the Contract Management Requirements.
Rotable Spares	Spare parts that are intended to be periodically maintained or overhauled and re-used.
Safe	A condition where the risk of a safety incident is reduced to a level As Low As Reasonably Practicable (ALARP) – defined in System Safety Manual.
Safe Work Method Statement	The bottom up analysis and detailing in a procedure of the relevant safety requirements for performing activities and the related allocation of responsibilities.
Safety	The avoidance of incidents; freedom from unacceptable risk – defined in Safety Risk Management Framework.
Safety Accountability Statement	A signed personal acceptance and certification that must detail specifically the principal safety and/or governance responsibilities and accountability lines for each applicable person (Definition from RailCorp Safety Governance Framework).
Safety Apparatus	Trainborne systems that provide a means of maintaining train safety in the event of incorrect action or inactivity by the train crew.
Safety Assurance Reports	The Safety Assurance Reports referred to in clause 3.3.2 of the Contract Management Requirements.
Safety Interface Agreement	The Safety Interface Agreement has the meaning given to it in the <i>Rail Safety Act 2002 (NSW)</i> .
Safety Management Plan	The Safety Management Plan referred to in clause 3.1 of the Contract Management Requirements.
Safety Management System	The Safety Management System referred to in clause 3.1 of the Contract Management Requirements.
Saloon	A separate section of the Set in which Passengers are seated in transverse direction.
Scenario Builder	The Scenario Builder referred to in clauses 4.4.8 and 4.4.9 of the RailCorp Simulator Specification.

Term	Definition
Scheduled Maintenance	Maintenance work scheduled in the Technical Maintenance Plan or the Maintenance Facility Asset Management Plan or any other documents containing maintenance schedules for the Sets, the Simulators, the Maintenance Facility, the Unfixed Maintenance Plant and Equipment or the Maintenance Parts and Materials.
Security Staff	RailCorp staff whose role requires them to ride the Passenger areas of the Set but who also need access to Crew areas if required. They require good visibility within Passenger areas.
Service Brake	The brake system used during normal operation of electric braking blended with friction braking.
Service Limit	The specification of the limit to which an item of equipment is allowed to wear or be used before it is replaced or repaired.
Session Controller	The Session Controller referred to in clause 4.3.17 and 4.3.18 of the RailCorp Simulator Specification.
Set Not into Service (NIS)	The Set Not into Service (NIS) referred to in clause 2.3.2(e) of the RailCorp Through Life Support Specification.
Set-borne Gateway	The logical component that exposes, and manages the execution of, bi-directional (safety related & non-safety related) transactions between RailCorp on-Set systems and PPP Co on-Set systems, as referred to in clause 3.5.4.2 of the RailCorp Train Performance Specification.
Side Sill	Has the same meaning as Sole Bar.
Signal and Track Controller (STC)	The Signal and Track Controller (STC) referred to in clauses 4.3.8 to 4.3.10 of the RailCorp Simulator Specification.
Simulator Area	A hardstand area designated to accommodate the Mobile Version Simulator at the Maintenance Facility.
Simulator Building	The Simulator Building referred to in clause 6.3 of the RailCorp Simulator Specification.
Simulator Configuration Database	The Simulator Configuration Database referred to in clauses 4.4.13 and 4.4.14 of the RailCorp Simulator Specification.
Simulator Control Station (SCS)	The Simulator Control Station (SCS) referred to in clause 4 of the RailCorp Simulator Specification.
Simulator Controller	The Simulator Controller referred to in clauses 4.3.17 and 4.3.18 of the RailCorp Simulator Specification.

<b>Term</b>	<b>Definition</b>
Simulator Training Facility	Means the Simulators (as defined in clause 1.1 of Conditions of Contract).
Site Controller	A nominated person, or an Emergency Services Officer, with the responsibility to manage an incident site (definition from Train Operating Manual).
Site Earthworks	The Site Earthworks referred to in clause 3.1.1 of the RailCorp Maintenance Facility Specification.
Site Trackwork	The Site Trackwork referred to in clause 3.1.4 of the RailCorp Maintenance Facility Specification.
Software Detail Design Document	The Software Detail Design Document referred to in clause 4.4.9 (f) of the Contract Management Requirements.
Software Product Technical Specification	The Software Product Technical Specification referred to in clause 4.4.9 (g) of the Contract Management Requirements.
Sole Bar	The main Longitudinal structural member of the Car body.
Special Purpose Outlet (SPO)	Non-industry-standard electrical socket supplying electrical power.
Special Timetable	The Special Timetable referred to in clause 2.3.10 of the RailCorp Through Life Support Specification.
Special Train Notice	A notice issued to Train Crew by train planning to advise on alternative train routing or stopping pattern.
Stable Push Button	A button provided on the Set that will switch the whole train to Stabled state.
Stabled	A state that the train is switched to when out of use and parked.
Staff Outplacement Sub-plan	The Staff Outplacement Sub-plan referred to in clause 8.4.2 of the Contract Management Requirements.
Standing Roads	Comprise the Standing Roads East and the Standing Roads West.
Standing Roads East	Comprise the group of six (6) parallel tracks situated to the east of the Maintenance Building in which each track/road is of sufficient length to accommodate an 8-car Set of at least 163 m length clear of the Maintenance Roads and the Maintenance Building and all signalling, and not restrict access to any other Storage Roads, the Down Relief line or building stores areas.

Term	Definition
Standing Roads West	Comprise the group of six (6) parallel tracks situated to the west of the Maintenance Building in which each track/road is of sufficient length to accommodate an 8-car Set of at least 163 m length clear of the Maintenance Roads and the Maintenance Building and all signalling, and not restrict access to the Down Relief line. The Standing Roads West are connected to the Down Relief line by signalled trackwork.
Static Rolling Stock Outline	The maximum cross-sectional outline of the specified Car.
Steady State MDBI	The point on the reliability curve where the Reliability Growth first exceeds the Reliability Plateau Threshold expressed as the MDBI and the distance travelled (cumulative kilometres) at that point.
Storage Roads	Electrified rail tracks designated for the storage of Sets and other RailCorp electric trains awaiting maintenance in the Maintenance Facility or awaiting delivery to RailCorp after undergoing maintenance.
Stores Area(s)	The Stores Area(s) referred to in clause 4.1.7 of the RailCorp Maintenance Facility Specification.
Subsystem	A part of a system which itself has the characteristics of a System, usually consisting of several components. Examples of Subsystems in the context of this Project are the bogies, the braking system and the air-conditioning system on the Cars; the Driver's Control Station and the Simulator Control System on the Simulators; the lighting system, the security system, the compressed air distribution system and the vehicle lifting system in the Maintenance Facility; and other CWBS level 2 items.
Superelevation	Superelevation (or cant) is the difference in height between the two rails at a track location, measured across the heads of the rails at 1500mm centres. Superelevation deficiency (sometimes referred to as cant deficiency) is the difference between the equilibrium Superelevation for a particular speed through a curve, and the actual Superelevation in the curve. Equilibrium Superelevation is the Superelevation that would give no resulting Lateral acceleration in a curve, when traversed at the nominated speed.
Sydney Metropolitan Area	The Sydney Metropolitan Area is bounded by the Waterfall, Macarthur, Emu Plains and Cowan stations.
System	A group of independent but inter-related elements comprising a unified whole. Examples of Systems in the context of this Project are the Sets; the Simulators; the Maintenance Facility; and other CWBS level 1 items.

Term	Definition
System Definition Safety Assurance Report	The System Definition Safety Assurance Report referred to in clause 3.3.2(b) of the Contract Management Requirements.
System Hazard Analysis (SHA)	The System Hazard Analysis (SHA) referred to in clause 3.2 of the Contract Management Requirements.
Systems Assurance Process	A process for the application of management methods and analysis techniques to assure that a product meets RAMS criteria.
Tangara	The fleet of suburban 3 <sup>rd</sup> generation trains (T cars and G cars) supplied by Goninan that entered service from 1988.
Tangent Track	Track which is straight with zero horizontal curvature (a horizontal curve radius of infinity).
Tare	The mass of a Set with no Crew and no Passengers but otherwise complete and ready for service with all systems operational. Note that testing in the Tare condition shall include the Crew and testing personnel and equipment. Also referred to as AW0.
Target MDBI	The Target MDBI is the predicted long term reliability of the Sets calculated as the total kilometres predicted to be travelled by the Operational Sets between the start of year 15 of the TLS Phase and the end of year 24 of the TLS Phase divided by the total predicted number of PPP Co Related Incidents in the same period.
Task	An individually identifiable, discrete element of work to be carried out during the Delivery Phase or the Through Life Support Phase.
Technical Support Continuity Sub-plan	The Technical Support Continuity Sub-plan referred to in clause 8.4.5 of the Contract Management Requirements.
Tender Safety Assurance Report	The Tender Safety Assurance Report referred to in clause 3.3.2(a) of the Contract Management Requirements.
Test Activity	The Test Activities referred to in clause 4.12 of the Contract Management Requirements.
Test Report	The Test Report referred to in clause 4.12.10 of the Contract Management Requirements.
Test Report Summary	The Test Report Summary referred to in clause 4.12.10 of the Contract Management Requirements.
Test Specifications	The Test Specifications referred to in clause 4.12.10 of the Contract Management Requirements.

<b>Term</b>	<b>Definition</b>
Testing and refinement of the Interface Protocols and Procedures Sub-plan	The Testing & refinement of the Interface Protocols & Procedures Sub-plan referred to in clause 8.3.4 of the Contract Management Requirements.
Tolerance	The amount by which a measurement or calculation may vary and still be acceptable and which does not compromise function. Where no Tolerance is stated on a physical property contained throughout the RailCorp Train Performance Specification, PPP Co shall define the range of values to be used.
Track Builder Tool	The Track Builder Tool referred to in clause 4.3.14 of the RailCorp Simulator Specification.
Track Importer/Exporter Facility	The Track Importer/Exporter Facility referred to in clauses 4.4.12 to 4.4.14 of the RailCorp Simulator Specification.
Tradeoffs	Optimisation of outcomes by varying two or more interdependent parameters.
Train Certification Tests	The Train Certification Tests referred to in items 1.13 to 1.16 of Appendix K to the RailCorp Train Performance Specification.
Train Configuration Builder	The Train Configuration Builder referred to in clauses 4.4.17 to 4.4.19 of the RailCorp Simulator Specification.
Train Destination Indicators	The Train Destination Indicators referred to in clause 2.5 of the RailCorp Through Life Support Specification.
Train Marker Lights	Lights that indicate the extremities of the unit as referred to in RailCorp Train Performance Specification clause 9.22
Train Performance Display (TPD)	The Train Performance Display (TPD) referred to in clause 2.4 of the RailCorp Simulator Specification.
Train Preparation	The process defined in the Train Operations Manual and any other instructions issued by RailCorp from time to time which require a Driver and a Guard to perform a series of checks to ensure that the Set meets the Minimum Operating Standards for Available Sets prior to the Set entering into operational service. Train Preparation is repeated on a regular basis depending on the use of the Set in service and the duration of any Stabled periods between operational services.
Train Profile Display	The Train Profile Display referred to in clause 2.4.3 of the RailCorp Simulator Specification.

Term	Definition
Train Radio	A radio communications system to facilitate secure communications between Train Crew, Signallers, Control Officers (collectively known as Network Control Officers (NCOs)) and other operations and engineering staff. RailCorp currently operates a Metropolitan wide radio service called MetroNet. Train Radio is used to pass safeworking and other safety related information between rail staff.
Train Stop	A track-side mechanical mechanism which when raised, is struck by the trip on a passing Set causing it to stop.
Train Testing and Commissioning Network Access Plan	The Train Testing and Commissioning Network Access Plan referred to in clause 4.12.7 of the Contract Management Requirements.
Trainee	Person undertaking training.
Trainee Driver	A Trainee Driver is a Driver undertaking training.
Trainee Guard	A Trainee Guard is a Guard undertaking training.
Trainee Performance Report	The Trainee Performance Report referred to in clause 4.4.2 (d) of the RailCorp Simulator Specification.
Training Management Sub-plan	The Training Management Sub-plan referred to in clause 8.3.3 of the Contract Management Requirements.
Training Room	The Training Room described in clause 4.1.6 of the RailCorp Maintenance Facility Specification.
Training Session	A Training Session is either a DS, a GS or a PTS Training Session referred to in the RailCorp Simulator Specification.
Transaction Management	The processes that support and manage the implementation of the Transaction Model, as referred to in Clause 2.2.3 of the RailCorp Through Life Support Specification.
Transaction Model	An ICT artefact documenting the interaction between the provider of the service and the consumer of the service, as referred to in Clause 2.2.3 of the RailCorp Through Life Support Specification.
Transitional Stabling	Limited provision for Stabling of Sets during the TLS Phase that have 'in service' issues.
Transition-in Communications Sub-plan	The Transition-in Communications Sub-plan referred to in clause 8.3.6 of the Contract Management Requirements.
Transition-in Communications Sub-plan	The Transition-in Communications Sub-plan referred to in clause 8.3.6 of the Contract Management Requirements.

<b>Term</b>	<b>Definition</b>
Transition-in Plan	The Transition-in Plan referred to in clause 8.3 of the Contract Management Requirements.
Transition-in Stabling Sub-plan	The Transition-in Stabling Sub-plan referred to in clause 8.3.5 of the Contract Management Requirements.
Transition-in Support Sub-plan	The Transition-in Support Sub-plan referred to in clause 8.3.1 of the Contract Management Requirements.
Transition-out Plan	The Transition-out Plan referred to in clause 8.4 of the Contract Management Requirements.
Transition-out Support Sub-plan	The Transition-out Support Sub-plan referred to in clause 8.4.1 of the Contract Management Requirements.
Trip Gear	A pneumatic valve mechanically operated by a trackside train stop, which, if so operated, causes an Emergency Brake application and loss of traction.
Turnaround Cleans	As defined in the RailCorp Train Presentation Manual.
Type Testing	Type testing is an alternative name for Qualification Testing.
Underfloor Wheel Profiling Machine	The Underfloor Wheel Profiling Machine referred to in clause 2.3.8 of the RailCorp Through Life Support Specification.
Underfloor Wheel Profiling Plant	The Underfloor Wheel Profiling Plant referred to in clause 3.1.9 of the RailCorp Maintenance Facility Specification.
Underfloor Wheel Profiling Plant Building	The Underfloor Wheel Profiling Plant Building described in clause 4.1.3 of the RailCorp Maintenance Facility Specification.
Unscheduled Maintenance	Maintenance work which is not Scheduled Maintenance.
Upgrade Path	The series of future scheduled enhancements to a product.
Upload	The movement of data (or a copy of the data) into an ICT system.
User Management Interface	The User Management Interface referred to in clause 4.4.2 of the RailCorp Simulator Specification.
User Management Report Generator	The User Management Report Generator referred to in clause 4.4.3 to 4.4.7 of the RailCorp Simulator Specification.
User Manual	The User Manual referred to in clause 6.1.1 of the RailCorp Simulator Specification.



Term	Definition
Vendor Item	An item which is purchased from a third party for incorporation into the manufacture or construction of the Cars, the Simulators or the Maintenance Facility Works.
Verification	Confirmation by examination and provisions of objective evidence that specified requirements have been fulfilled (IEEE definition).
Verification Requirements Matrix	The Verification Requirements Matrix referred to in clause 4.12.2 of the Contract Management Requirements.
Vestibule	The area between the end and centre saloons and adjacent to the side entry door.
Vigilance Control	A task linked, Crew-controlled safety device active during powering, low level braking or coasting which activates an Emergency Brake application in the event of a Driver failing to routinely acknowledge the system within a specified and speed related period.
Visual Display Unit	A display screen and associated support and mounting equipment to provide display of graphical and textual information.
Washplant	Comprises the plant, equipment, related facilities, associated trackwork and hard stand areas provided to carry out automated, drive through washing of the external surfaces of trains.
Washplant Building	The Washplant Building described in clause 4.1.4 of the RailCorp Maintenance Facility Specification.
WB Mode	Single frequency simplex radio on 450.050 MHz.
Wheel Condition Monitoring Machine (WCMM)	The Wheel Condition Monitoring Machine referred to in clause 3.1.4.1 of the RailCorp Maintenance Facility Specification.
Wheel Profiling Machine	The Wheel Profiling Machine referred to in clause 4.6.2 of the RailCorp Through Life Support Specification Interface Protocols.
Wheel Slide Protection	A system that controls wheel slip and slide under traction and braking conditions to maximise effective adhesion allowing higher acceleration and braking rates and to minimise damage to wheels and rails.
Wheelchair Space	Area within the Set, which is allocated to the use of disabled or movement impaired people travelling in wheelchairs or motorised scooters.
Wheelset	One wheelset consists of one axle fitted with two wheels.

<b>Term</b>	<b>Definition</b>
Wheelset Management Plan	The Wheelset Management Plan is referred to in clause 4.11 of the Contract Management Requirements.
Workstation	A Guard's Workstation or a Driver's Workstation.
Yard Control	<p>When RailCorp controls movements on the Down Relief – Yard Control means the control of movements of trains, vehicles and pedestrians entering, exiting and within the Maintenance Facility.</p> <p>When a Local Possession Authority has been granted to PPP Co for the Down Relief – Yard Control means the control of movements of trains, vehicles and pedestrians entering, exiting and within the Maintenance Facility, and also the control of movements of trains on the Down Relief and co-ordination with RailCorp for trains entering and exiting the Down Relief from the Auburn and Granville ends.</p>
Yaw	Rotation in a horizontal plane about a vertical axis.

In the event that RailCorp exercises its right under clause 30.18 of the Conditions of Contract (Pre-Agreed Variation), the following definitions will be amended as follows:

<b>Term</b>	<b>Definition</b>
Crew Cab	Has the same meaning as Cab.
Driver's Cab	A Crew Cab in use by a Driver.
Guard	RailCorp staff on a Passenger train who carries out safeworking duties and is responsible for the safety and supervision of Passengers. The Guard normally operates from a Workstation in an Active Guard's Workstation in a Cab remote from the Driver, at the rear of the Set. Under some conditions the Guard may need to operate from the same Cab as the Driver.
Guard's Cab	A Crew Cab in use by a Guard.
Guard's Workstation	Location in a Crew Cab at which the Guard will carry out assigned functions.
Repeater Guard	A second Guard who may travel on a Set in a Crew Cab to assist the primary Guard in carrying out station duties.

## 2 DEFINITION OF ABBREVIATIONS

Abbreviation	Definition
A/C	Air Conditioning
AC or ac	Alternating Current
ADR	Australian Design Rule
AFL	Above Floor Level
AID	Audible Indication Device
ALARP	As Low As Reasonably Practicable (ALARP) – Principle applied to assessment of risk to ensure level of risk is reduced to the lowest reasonably practicable level.
AM	Amplitude Modulation
API	Application Program Interface
AQTF	Australian Quality Training Framework
ARL	Above Rail Level (on level tangent track)
AS	Australian Standard
ASCII	American Standard Code for Information Interchange
ATC	Automatic Train Control
ATO	Automatic Train Operation
ATP	Automatic Train Protection
AW0	Empty Set prepared for operation. Also referred to as Tare.
AW1	Empty Set prepared for operation plus full seated load of passengers, driver and guard.
AW2	Empty Set prepared for operation plus full seated load of passengers, peak load of standees @ 2.5 passenger per m <sup>2</sup> , driver and guard.
AW3	Empty Set prepared for operation plus full seated load of passengers, crush load of standees @ 6 passenger per m <sup>2</sup> , driver and guard. Also referred to as Crush Load.
B2B	Business-to-Business
BS	British Standard
CASE	Computer Aided System Engineering

Abbreviation	Definition
CCTV	Closed Circuit Television – System of cameras and recording devices used to capture video images.
CDR	Critical Design Review
CDRL	Contract Deliverables Requirements List
CGI	Computer Generated Image
CI	Crew Intercom
CMMI	Capability Model Maturity Integration (registered trade mark of the Software Engineering Institute at Carnegie Mellon University, USA).
CMP	Configuration Management Plan
COTS	Commercial off the Shelf
CPU	Central Processing Unit
CTBC	Combined Traction and Brake Controller
CTIP	Common Telemetry Infrastructure Platform
CV	<i>Curriculum Vitae</i>
CWBS	Contractor's Work Breakdown Structure
DC or dc	Direct Current
DDU	Driver's Display Unit
D-GPS	Differential Global Positioning System
DI	Destination Indicator
DoDAF	Department of Defense Architecture Framework
DS	Driver's Simulator
DSAPT	Disability Standards for Accessible Public Transport 2002 (amended in 2004)
DTR	Digital Train Radio
DVA	Digital Voice Annunciator or Digital Voice Announcement
DWD	Door Warning Device

Abbreviation	Definition
EAPS	Electrical Auxiliary Power Supply
EASE	Enhanced Acoustic Simulator for Engineers
ebXML	Electronic Business using eXtensible Markup Language
EDR	Emergency Door Release
EE	Equipment Examiner
EI	(RailCorp) Engineering Instruction
EIA	Electronics Industries Alliance
EMC	Electro-magnetic Compatibility
EMI	Electro-magnetic Interference
EMU	Electrical Multiple Unit
EN	European Standard (EuroNorm)
ENV	European Pre-Standard
EP	Electro-Pneumatic
EPA	Environment Protection Authority
ER	Event Recorder
ETCS	European Train Control System
FE	RailCorp Fleet Engineering Specification
FEA	Finite Element Analysis
FFT	Fast Fourier Transform
FM	Frequency Modulation
FMECA	Failure Modes Effects and Criticality Analysis – Identification of possible causes and modes of failure, the resulting impacts and their consequences.
FRA	Federal Railroad Administration (USA)
FRACAS	Failure Reporting and Corrective Action System
GS	Guard's Simulator

Abbreviation	Definition
GPO	General Purpose Outlet
GPS	Global Positioning System
HAZOP	HAZard and OPerability study – a process used to identify hazards in new designs and assess the result of operating systems outside design limits or specifications.
HSCB	High Speed Circuit Breaker
HVAC	Heating, Ventilation and Air Conditioning
Hz	hertz
ICT	Information and Communications Technology
ID	Identification
IDI	Internal Destination Indicator
IEC	International Electrotechnical Commission
IIMS	Incident Information Management System – RailCorp's system used to record and report on 'incidents on the network'.
I/O	Input/Output
IRU	Interrogator Reader Unit
ISO	International Organisation for Standardisation
ISP	Integrated Support Plan
ITIL	Information Technology Infrastructure Library (see <a href="http://www.itil.co.uk">www.itil.co.uk</a> )
ITP	Integrated Test Plan
ITSRR	Independent Transport Safety and Reliability Regulator
kbps	Kilobytes per second
L/V	The instantaneous value of the ratio of lateral to vertical wheel load.
LED	Light Emitting Diode
MCB	Miniature Circuit Breaker
MCO	Mechanical Control Office

Abbreviation	Definition
MDBI	Mean Distance between Incidents
METRE	RailCorp's system for recording and reporting defects on electric trains. (METRE is an acronym of Making Electric Trains Run Efficiently).
MIL-STD	Military Standard (United States of America)
MIMS	Maintenance Information Management System (RailCorp's system for recording and reporting defects on infrastructure and diesel trains).
MMIS	Maintenance Management Information System (generic – METRE and MIMS are examples of an MMIS).
MPC	Main Power Connection
MPS	Main Power Supply
MTBF	Mean Time between Failures
MTBM	Mean Time between Maintenance
MTTM	Mean Time to Maintain
MTTR	Mean Time to Repair
NF	Norme Francaise
NOHSC	National Occupational Health and Safety Commission
NR	Not Rejected
OEH	Operator Enable Handle
OEP	Operator Enable Pedal
OH&S	Occupational Health and Safety
OHW	Overhead Wire
OMET	Operation and Management of Electric Trains - a series of procedures within the Train Operations Manual giving detailed instruction to Drivers and Guards on the action to take relating to specific defects on trains.
OTSI	Office of the Transport Safety Investigator
PA	Public Address

Abbreviation	Definition
PAL	Phase Alternating Line
PCA	Physical Configuration Audit
PDR	Preliminary Design Review
PEI	Passenger Emergency Intercom
PIS	Passenger Information System – system of visual displays and audible announcements providing information to passengers on train working and stations.
PLC	Programmable Logic Controller
PPP	Public Private Partnership
PQP	Project Quality Plan
PTC	Push-To-Call
PTT	Push to Talk
PVB	Poly-vinyl-butyril
QA	Quality Assurance
QRA	Quantified Risk Assessment
R	Rejected
RailCorp	Rail Corporation New South Wales
RailML	Rail Markup Language
RAM	Random Access Memory
RAMS	Reliability, Availability, Maintainability and Safety
RCM	Reliability Centred Maintenance
REF	Review of Environmental Factors
RF	Radio Frequency
RIC	Rail Infrastructure Corporation (now RailCorp Infrastructure Division)
RMC	Rail Management Centre



Abbreviation	Definition
RMS	Root Mean Square
ROM	Read-only Memory
RSD	Rolling Stock Division (a division of RailCorp's Asset Management Group)
RSS	Rolling Stock Standards
RSU	Rolling Stock Units (part of Rolling Stock Standards)
RTOS	Real-time Operating System
SAI	Safety Apparatus Isolation
SAP	Systems Assurance Plan
SC	Subject to Comments
SCARD	Safety Change Assessment Reporting Determination
SCMF	Safety Change Management Framework
SDDD	Software Detail Design Document
SDR	System Definition Review
SHA	System Hazard Analysis
SLM	Sound Level Meter
SOL	Standard Operating Level
SPO	Special Purpose Outlet
SPTS	Software Product Technical Specification
STN	Special Train Notice
SVR	System Verification Review
SWMS	Safe Work Method Statements
TLS	Through Life Support
TMP	Technical Maintenance Plan

Abbreviation	Definition
TOGAF	The Open Group Architecture Framework (see <a href="http://www.opengroup.org">www.opengroup.org</a> )
TOM	Train Operations Manual – reference manual for drivers and guards which includes Train Working Procedures (TWP), OMET Procedures and OMDT (Operation and Management of Diesel Trains) Procedures.
TOS	Train Operating System
TPD	Train Performance Display
UIC	International Union of Railways
UTC	Coordinated Universal Time
WAN	Wide Area Network
WAV	Microsoft® Wave File Format
WB	Without Break
WBS	Work Breakdown Structure
WSP	Wheel Slide Protection
XPT	Express Passenger Train (operated by CountryLink)