

## **What is the purpose of this document?**

The Twenty Point Plan (20PP) is the current industry view of how to maximise the reliability of the UK national rolling stock fleet. Where helpful, it includes examples of best practice.

## **Who is it for?**

Train Operating Company (TOC) engineering teams, new engineering directors and fleet managers and other rail partners to help them:

- decide which issues to concentrate on in their own organisation and
- who to visit to see best practice so that they can develop their own ways of managing their fleets to increase reliability, and
- develop relationships and partnerships

## **Who owns it?**

The Fleet Reliability Focus Forum (ReFocus).

## **What / who is The Fleet Reliability Focus Forum?**

ReFocus is a voluntary group of railway engineers who have accountability for rolling stock. Members include The Network Performance Board (NPB), TOCs, Rolling Stock Leasing Companies (ROSCOs), the Railway Industry Association (RIA), Original Equipment Manufacturers (OEMs), Network Rail's Rail Vehicle Interface Engineers and the Department for Transport (DfT).

## **What does The Fleet Reliability Focus Forum do?**

ReFocus seeks to improve train performance through a better understanding and sharing of knowledge. A number of activities are undertaken, such as:

- collating and sharing national data – consistently produced to independently audited and agreed criteria.
- fleet comparisons and benchmarking – understanding reliability differences and challenging delivery where appropriate.
- spreading best practice – 20PP implementation follow-up, site visits.

## **Simplifications**

*The UK rail industry involves different parties with different divisions of labour. The typical model at privatisation of a TOC with a soggy lease from a ROSCO is generally used to simplify interpretation of the 20PP. Similarly, references to DfT include the Welsh Assembly Government and the Scottish Executive as appropriate. The principles apply irrespective of which party is actually undertaking each activity.*

## Summary

This document has been developed by fleet engineers for fleet engineers to help improve rolling stock performance. This issue has been updated to offer improved guidance on Common Reliability Data (Section 2) and Guidance on Electrical and Electronic Overhaul (Section 11) has been added. The document has also been reformatted.

This issue contains:

- Common Reliability Data (Section 2) – Miles per 3 Minute Delay, Miles per Trust Incident (MTIN) and Delays per Incident (DPI).
- Management for Improvement (Section 3) – principles, methods and examples to motivate sustained improvement, including Day-to-Day; Monitoring and Feedback; Change Management; Risk Evaluation.
- Seasonal Management (Section 4) – maximising the level and consistency of fleet performance during seasonal variances by operations and engineering working together to produce robust and effective management plans. This section is intended to promote a structured approach to seasonal planning and operations.
- Train Preparation (Section 5) – this section places emphasis on the plan, do, review process to ensure fleet safety, reliability and presentation.
- Delivering the Service (Section 6) – engineering, operations and planning understanding each other and pulling together: depot planning and train planning (e.g. Rules of the Depot); faults and failures (e.g. 2-way communications); measures of fleet performance. Working together on seasonal preparedness is vital.
- The Depot (Section 7) - the key frontline resources of fleet maintainers: depots (design, capacity and capability), their management and staffing, including motivation, training, skills development and competence assessment; the High Performing Depot Specification.
- On-Depot Fault Finding (Section 8) – this section explores good practice for on-depot fault finding, especially around No Fault Found; also, the best procedure for establishing robust fault finding.
- The Vehicles (Section 9) – the core activities of fleet maintainers: collecting and using data (Failure Mode Analysis, condition monitoring, analysing trends); managing repeat defects, deferred work and configuration control; developing the maintenance regime; understanding availability.
- Managing Ageing Rolling Stock (Section 10) - The purpose of this section is to increase awareness and knowledge of the factors to consider when identifying and managing ageing rolling stock and how to mitigate the impacts to avoid significant reliability and performance reduction.
- Electrical and Electronic Overhaul (Section 11) - This section covers the key areas to consider regarding electrical & electronic overhaul: Planning, Sharing information and Technical investigation
- The Infrastructure (Section 12) – how to manage engineering interfaces between vehicles and infrastructure (relationships, preventing problems).
- Managing Fleet Incidents (Section 13) - incidents on the railway will impact the whole system, usually measured in train delay minutes. This section includes guidance on how fleet incident management is best implemented.
- Supply Chain (Section 14) – having the right parts when and where required (spares holding, floats, measures, link to risk, change control, obsolescence, forecasting) and improving the quality of the parts through effective closed-loop relationships.
- New Train Procurement (Section 15) – how to buy a new train fleet for best 'out-of-the-box' service performance, risks associated with whole fleet behaviour following introduction.
- No Fault Found (16) - focuses on rolling stock component warranty claims where the supplier cannot find a fault with the returned component.

- ROSCOs (Section 17) – how ROSCOs can facilitate reliability improvement throughout vehicle lives, including fleet management plans; user groups and common issues; optimising for duty cycles.
- Overhaul Management (Section 18) – there is a recognised risk that a vehicle re-entering service post-overhaul suffers from a reduction in reliability; this section aims to address the issues which cause a fleet's reliability to decline.
- Outsourced Maintenance (Section 19) – best practice in TOCs managing outsourced maintenance, connection to training and development of 'in-house' skills and competences (principles are also relevant to TOCs which do most of their work in-house).
- Business Continuity Management (Section 20) – how any business can prepare and implement the strategic and tactical capability of the organisation to plan for and respond to incidents and business disruptions in order to continue business operations at an acceptable pre-defined level