RAIL RELIABILITY, CAPACITY AND PERFORMANCE 2014

15 October 2014
The Hatton, London
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RAIL RELIABILITY, CAPACITY AND PERFORMANCE 2014

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Railway Division
Seminar
RAIL RELIABILITY, CAPACITY AND PERFORMANCE 2014

“"

RAIL RELIABILITY, CAPACITY AND PERFORMANCE 2014 WILL PROVIDE AN OPPORTUNITY TO UNDERSTAND PRACTICAL, TECHNOLOGICAL AND HUMAN FACING SOLUTIONS TO THE CHALLENGES POSED BY INCREASED DEMANDS ON THE UK’S RAIL INFRASTRUCTURE.

Delays of up to a million minutes were caused on the rail network in 2013, according to the Office of Rail Regulation. The cost of these delays to network and operators is not only measured in financial terms, but also in customer and passenger perception.

With technological improvements and advances such as Remote Condition Monitoring (RCM) and Traffic Management Systems (TMS) seeking to provide cost-effective solutions to reliability challenges, the importance of ensuring that individuals understand how to interpret the results and put these into practical applications has never been stronger.

How can closer management and operational relationships between Network Rail, TOCs and wider systems engineering provide a solution to the reliability challenge?

With demands placed on capacity becoming greater, this seminar will examine solutions put in place by the entire rail supply chain to reduce this cost and increase the reliability, capacity and performance of Britain’s rail fleet.

ATTEND TO HEAR ABOUT:

- CP4 to CP5: Explore the challenges, solutions and the lessons learnt to avoid potential risks
- Implementing Traffic Management Systems to ensure smooth application of ARAMIS
- Reliability, quality and collaboration through investing in people and technology
- Deploying automatic vehicle inspection systems with early identification of defective or life-expired components
- Cross-sector innovations which have been applied successfully in Rail

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**WEDNESDAY 15 OCTOBER 2014**

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<td>08:30</td>
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| 09:00 | **CHAIR’S OPENING REMARKS**  
Ian Papworth, Committee Member, IMechE Rail Division                  |
| 09:05 | **KEYNOTE SPEAKER**  
Dyan Crowther, Chief Operating Officer, Thameslink, Southern and Great Northern (TSGN) |
| 09:30 | **KEYNOTE SPEAKER**  
Chris Fenton, Chief Executive, The Rail Safety and Standards Board (RSSB) |
| 09:55 | **CP4 TO CP5: THE CHALLENGES, SOLUTIONS AND LESSONS LEARNED**  
Christian Roth, Chief Engineer, South West Trains and Chairman of Fleet Challenge, ATOC  
- Lessons learnt from the achievements and challenges in CP4  
- Meeting the NTF CP5 targets: what it means and the risks involved  
- How technology can help fleet managers overcome the key challenges |
| 10:20 | **REFOCUS FOR CP5 CHALLENGES AND INITIATIVES**  
Stuart Draper, Director of Engineering, Northern Rail  
- Continue development and usage through the 20 Point Plan  
- Discover TOC reliability and performance initiatives already in practice  
- Evaluate practical collaboration and best practice sharing for the railway community |
| 10:45 | **PANEL DISCUSSION**  
Chris Fenton, Chief Executive, The Rail Safety and Standards Board (RSSB)  
Christian Roth, Chief Engineer, South West Trains and Chairman of Fleet Challenge, ATOC  
Stuart Draper, Director of Engineering, Northern Rail |
| 11:00 | **NETWORKING BREAK**                                                    |
| 11:30 | **IMPLEMENTING TRAFFIC MANAGEMENT SYSTEMS: AN UPDATE ON THE UK PROGRAMME**  
Dave Fidal, Technical Design Manager, and David Taylor, Business Development Director, Thales Ground Transportation Systems  
- Explore approaches to traffic management and typical implementations  
- Understand the lessons learnt from international implementation to ensure smooth application of ARAMIS on the UK rail network  
- Discover the benefits for TMS implementation in the UK |
| 11:55 | **COUNTRYWIDE FLEET DELAY UNDER 1000 MINUTES: AN ACHIEVABLE UK TARGET?**  
Peter Smyth, Chief Mechanical Engineer, Irish Railways  
- Using lean methodology to impact positively on reliability  
- Understand the approaches required for technical solutions  
- Manage the supply chain and recognising contribution from external processes |
| 12:20 | **PANEL DISCUSSION**  
Dave Fidal, Technical Design Manager, Thales Ground Transportation Systems  
David Taylor, Business Development Director, Thales Ground Transportation Systems  
Peter Smyth, Chief Mechanical Engineer, Irish Railways |
<p>| 12:30 | <strong>NETWORKING LUNCH</strong>                                                    |</p>
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| 13:30 | SOUTH WEST TRAINS PRACTICAL EXPERIENCE                                       | James Herriott, Engineering Change Manager, Stagecoach South Western Trains                | • Explore onboard system contribution to service delivery and capacity analysis  
• Effective monitoring of infrastructure using passenger trains  
• Evaluate wheel management system development                      |
| 13:55 | WHOLE RAILWAY SYSTEM DEPENDABILITY                                          | Rakesh Gaur, Head of Innovation and Graham Neil, Professional Head of Rolling Stock, TfL, London Underground | • Meet the London Mayor’s target to reduce tube delays by 30%  
• Understand fleet, related assets and human aspects, how delays are caused and establishing links with LU’s World Class Capacity project  
• Use technology to improve dependability across the system                      |
| 14:20 | RELIABILITY, QUALITY AND COLLABORATION: INVESTING IN PEOPLE AND TECHNOLOGY    | Jon Vietch, Production Director, Hitachi Rail Europe                                       | • Move towards electrification by replacing diesel-powered HST rolling stock  
• Deliver a more reliable and higher quality commuter service through AT200  
• Invest in staff to achieve better results and ensure internal knowledge transfer  |
| 15:00 | NETWORKING BREAK                                                             |                                                                                           |                                                                        |
| 15:30 | RELIABILITY, CAPACITY AND PERFORMANCE, SYNERGY AND APPLICATION ACROSS SECTORS | Richard Graham, Business Manager, Newton Europe                                            | • Explore how rail operations performance improvements have been made when working with an intensive metro operator in the UK  
• Gain insight into opportunities for performance improvements on metro train maintenance operation by applying techniques from other industries  
• Use relevant comparisons with useful techniques which can apply to rail infrastructure |
| 15:55 | NETWORK RAIL, TOC: WORKING TOGETHER MAKES SENSE                               | Steve Quinby, Head of Data Collection Services, Network Rail                               | • An introduction to the use of in-service trains to monitor infrastructure condition and the Data Collection Service Enhancement (DCSE) project  
• Providing an update of early lessons learnt from the new technology  
• Application and the potential benefits arising for the operational railway  |
| 16:20 | UNDERSTANDING AND DEPLOYING AUTOMATIC VEHICLE INSPECTION SYSTEMS/SERVICES (AVIS) | Oliver El-Falaki, Project Engineer, Bombardier                                             | • Explore AVIS enabled transition to a true Condition Based Maintenance (CBM) regime through the automated analysis of vehicle condition data  
• Optimise the use of consumable materials through increased inspection frequencies and trending capabilities  
• Improve reliability with early identification of defective or life-expired components |
| 16:45 | PANEL DISCUSSION                                                             | Richard Graham, Business Manager, Newton Europe, Oliver El-Falaki, Project Engineer, Bombardier |                                                                                                         |
| 16:55 | CHAIR’S CLOSING REMARKS                                                      | Ian Papworth, Committee Member, IMechE Rail Division                                       |                                                                        |
| 17:00 | CLOSE OF SEMINAR                                                             |                                                                                           |                                                                        |

Find out more about our speakers at [www.imeche.org/events/S6168](http://www.imeche.org/events/S6168)  
• This programme is subject to change  
• The Institution is not responsible for the views or opinions expressed by individual speakers.

Organising committee:  
• Ian Papworth, Independent Consultant and Chair of the event  
• Mike Corbett, Independent Consultant  
• Ben Ackroyd, Engineering Director, c2c
SPEAKERS AND CONTRIBUTORS

DYAN CROWTHER KEYNOTE
CHIEF OPERATING OFFICER, THAMESLINK, SOUTHERN AND GREAT NORTHERN (TSGN)
Dyan Crowther is a career railway woman. She has operated at a senior level for over 15 years, including the roles of Managing Director of a TOC and Route Managing Director of the world’s busiest railway, the West Coast Mainline. She has recently taken up the post of Chief Operating Officer for TSGN (Thameslink, Southern and Great Northern) the UK’s biggest train operator. Dyan is a trustee of the Railway Children Charity and a Non Executive Director of East and North Herts Acute Trust.

CHRIS FENTON KEYNOTE
CHIEF EXECUTIVE, THE RAIL SAFETY AND STANDARDS BOARD (RSSB)
Chris Fenton brings to his role experience in leadership positions in the infrastructure and business services sector. Joining BSI in 2003, Chris applied these experiences in switching to the services sector to manage the testing and inspection division, re-establishing profitability and leading the management team in a successful sale of the business. Moving to Amey in 2006, Chris re-established the profitability of business services, as a platform for further investment and growth making this a core activity for the company. Most recently Chris led Amey’s marketing and strategy aims, building the case for growth and the acquisition of Enterprise. Chris is currently a Non-Executive Director with the Nuclear Decommissioning Authority.

CHRISTIAN ROTH
CHIEF ENGINEER, SOUTH WEST TRAINS AND CHAIRMAN OF FLEET CHALLENGE, ATOC
Christian Roth is a Mechanical Engineer who started his career as a trainee with Siemens in mechanical and electrical engineering, followed by a period in sales of Light Rail Vehicles, eventually becoming General Manager Sales of Large Drives. From 1997-2000 he was General Manager for Product Management and R&D for Metro and Suburban trains, then Managing Director of Siemens Electrification for Rail from 2000-2005 and Managing Director of Siemens Transportation Systems in the UK until moving to his current position.

STUART DRAPER
DIRECTOR OF ENGINEERING, NORTHERN RAIL
Stuart Draper started working at British Railway Engineering Ltd (BREL) in 1978 at the carriage works in Derby as a technician trainee. Stuart moved to the Railway Technical Centre in 1981 as a Senior Technical Officer (STO) working on maintenance for EMUs/DMUs. In 2009 Stuart became Interim Engineering Director and in 2010 became the Engineering Director of Northern, looking after 990 staff and 313 units (DMU/EMU). Since then Stuart has become Chair of the ReFocus group in 2009 and shaped it from NFRIP into a best practice forum for sharing engineering solutions, processes and improvements.

DAVE FIDAL
TECHNICAL DESIGN MANAGER, THALES GROUND TRANSPORTATION SYSTEMS
Dave Fidal is employed by global technology and services company Thales within the Ground Transportation Systems Business in the UK. Dave is a Senior Technical Manager responsible for leading the specification and development of solutions for the mainline rail market. Dave has over 25 years in the rail sector, including senior positions working with British Rail, Railtrack, English Welsh and Scottish Railways and DB Schenker. Dave is the Design Authority for Thales Traffic Management offer in the UK.

DAVID TAYLOR
BUSINESS DEVELOPMENT DIRECTOR, THALES GROUND TRANSPORTATION SYSTEMS
David Taylor is responsible for developing the relationship with between Thales Group including the security, training and transportation systems business with Network Rail. Within this capacity David was the Thales lead for the Network Rail Traffic Management programme. David is a Fellow of the Institute of Railway Signal Engineers and has been involved in the rail sector for the past 25 years in both a technical and commercial capacity, and started his career as a signal and telecoms apprentice within British Rail.
RAKESH GAUR
HEAD OF INNOVATION, TFL, LONDON UNDERGROUND
Rakesh Gaur is the Head of Innovation at London Underground, championing better understanding of LU’s technical and business challenges within the UK innovation landscape, with a purpose of focusing solutions to realise efficiencies and accelerate delivery of LU’s technical strategy route-maps. Since 2011, Rakesh has been part of the LU systems engineering team as professional head of RAM, providing thought leadership and business maturity growth to one of LU and Transport for London’s key Mayoral challenge areas. During this time he has also led the development of futuristic ‘visions’ in order to provoke creative thought and discussion on the future of transport.

RICHARD GRAHAM
BUSINESS MANAGER, NEWTON EUROPE
Richard Graham, as Head of the Transport & Infrastructure sector at Newton Europe, delivers operational improvement programmes across a variety of industries including rail. Experience with rail organisations has been with rolling stock manufacture and maintenance, train operations and civil and track maintenance. Richard is a Mechanical Engineering Scholar from New College, Oxford University.

STEVE QUIMBY
HEAD OF DATA COLLECTION SERVICE, NETWORK RAIL
Steve Quimby is currently Head of Data Collection Services (DCS) at Network Rail where he leads specialist teams in the acquisition and validation of asset condition data. Using technologies sourced from around the world, which are deployed on a fleet of dedicated measurement trains and in-service passenger vehicles, DCS provides a 24/7 operation giving accurate, timely and cost-efficient asset condition data that allows engineers and others to gain insight into the performance of key assets on the railway.

OLIVER EL-FALAKI
PROJECT ENGINEER, BOMBARDIER
Oliver El Falaki holds a Master Degree in Manufacturing Engineering from Loughborough University and is an Associate Member of the Institution of Mechanical Engineers. He joined the Bombardier Transportation (BT) UK Graduate scheme in September 2012 as a graduate engineer working predominantly within the services function on design for maintenance, maintenance optimisation and lifecycle engineering projects. He is now a Project Engineer working on delivering AVIS for various in-service fleets around the country, as well as developing the AVIS solution for Crossrail and other Bombardier projects around the world.
BOOKING FORM

EVENT CODE: S6168A8
EARLY BIRD ENDS 12 SEPTEMBER

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Registration fees include entry to the sessions, refreshments, lunch and a copy of the event proceedings.

| Member, Institution of Mechanical Engineers | £225.25+VAT | £265.00+VAT | £ | EARLY BIRD RATE Before 12 September 2014 | STANDARD RATE | TOTAL |
| Member, supporting organisation | £225.25+VAT | £265.00+VAT | £ |
| Non-member | £280.50+VAT | £330.00+VAT | £ |
| Student/retired | £80.75+VAT | £95.00+VAT | £ |

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Payment must accompany this registration form. Registration will be confirmed only on receipt of full payment.

PLEASE INDICATE METHOD OF PAYMENT:
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Please read the information listed below as each booking is subject to the Institution’s standard terms and conditions.

CONDITIONS OF BOOKING

Completed application forms should be returned to the address above, along with the correct payment. Attendance at the event will be confirmed on receipt of the full balance. All participants are advised to bring a copy of their confirmation with them on the day, to ensure the fastest possible entry.

SPECIAL REQUIREMENTS

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OTHER EVENTS TO LOOK FOR:

17-19 September 2014
University of Birmingham
STRIVING FOR A MODEL RAILWAY: USING CHALLENGES OF THE PAST TO ENGINEER THE RAILWAY OF THE FUTURE
Through a series of workshops, case studies and informative lectures, practical insight will demonstrate how the industry as a whole is learning and adapting in order to provide the best possible service to the end user.

23 September 2014
Birmingham
ENERGY STORAGE: AN INTEGRATED APPROACH
Energy Storage: an integrated approach, has been specifically designed as a forum where mechanical engineers within the energy storage industry can learn from newly funded projects and existing sites.

26 November 2014
London
INTEROPERABILITY: SAFER, CHEAPER, EASIER
This seminar will showcase experience and best practice for the implementation of technical interoperability on UK railways for both trains and infrastructure.

For more information call us on: +44 (0)20 7973 1258 or email: eventenquiries@imeche.org

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