The Rail Industry’s Leading Summit On Lifecycle Asset Management

Driving The Practical Implementation Of Lifecycle Cost, Asset Management And Condition Based Maintenance Strategies

To Ensure Maintenance of Rolling Stock, Equipment And Maintenance Facilities Can Be Optimally Delivered

Featuring Leading Case Studies from Across the North American Passenger Rail Industry

- Learn from North American and International Rail Operators’ Experiences With Data as a Maintenance Tool
- Hear About The Practical Implementation Of Condition Based Maintenance Technologies In Real-World Rolling Stock Environments
- Devise Successful Maintenance Strategies For Managing And Modernizing An Ageing Fleet And Transitioning To A New Fleet
- Adapt Maintenance Planning And Programs For The Implementation Of Systems For Positive Train Control
- Improving Safety, Reliability And Car Availability For Rolling Stock Operations To Reduce Costs, Build Revenues And Drive Higher Customer Satisfaction Levels

REAL LIFE MAINTENANCE EXPERIENCES FROM ROLLING STOCK OPERATORS – FROM THE BODY OF THE VEHICLE AND BEYOND

EVENT COVERAGE:
- Wheels (Flange and Treads)
- Brakes
- Axle And Bogies
- Traction Motors
- Doors
- Air Conditioning and Air Filtration Systems

Donald Bonds
Chief Transit Officer
Chicago Transit Authority

Kyle Stockley
Program Manager, Vehicle Overhaul
Utah Transit Authority

Vernon Hartsock
Chief Engineer
Maryland Transit Administration

Guennadi Moussienko
Assistant Manager Rail Vehicle Engineering
Toronto Transit Commission (TTC)

Mike Nabhan
Asset Management Administrator/Report Developer
Regional Transportation District Denver

Wan Jui-Lee
Data Scientist
Dutch Railways

Keith Abate
Senior Director of Business Development
Perpetuum

Lee Braybrooke
Director of Marketing
Trimble Rail

Johannes Emmelheinz
CEO, Mobility Customer Services
Siemens

Richard Stelmach
Deputy Director, NYCT Programs
Knorr Brake

Gorka Parada
CEO
NEM Solutions USA

www.passenger-rolling-stock-maintenance.com
Performance, safety, reliability and car availability are all priorities that pose a challenge for transit agencies and that have a direct impact on revenue and customer service levels.

The North American Passenger Rolling Stock Maintenance Congress is an established industry event bringing together major passenger railroads in the USA annually to exchange information and best practices on how the maintenance of rolling stock, equipment and maintenance facilities can be optimally delivered, continuously improved, and even transformed through new technologies.

Obtaining the Commercial Technical Solutions That Rolling Stock Operators Are Looking For to CBM Problems

The 2018 Summit, taking place on March 27-28 at the Palmer House Hilton Hotel in Chicago will look at overall applications of state-of-the art technologies to support optimised end-to-end maintenance processes and systems, and will feature operator experiences on the process of technology implementation, challenges faced, and real results on the strategies applied.

"No more magic mileages for maintenance. New predictive technology will save us time & money"

Portland Bureau of Transportation

You will hear success stories from the rail industry direct, including new trends and railroad information data on condition-based maintenance and how the performance of various maintenance activities can be measured. Our speakers will describe the projects that they have undertaken and share results that have been achieved in terms of business critical performance criteria such as improving safety, implementing new equipment, reducing costs and improving availability.

Venue

The Palmer House Hilton
17 E Monroe St,
Chicago, IL 60603.

T: +1 312-726-7500

Designed For:

- Class 1 railroads, short line railroads and transit agencies
- Equipment suppliers
- Maintenance companies/sub contractors
- Rail car manufacturers
- Manufacturers of wheels, axels, gear boxes, traction motors, bearings
- Companies involved in the design, engineering and construction of maintenance facilities

"One of the best conferences focused on rolling stock maintenance"

www.passenger-rolling-stock-maintenance.com (1) 800 721 3915 info@american-business-conferences.com
Driving The Practical Implementation Of Life Cycle Cost, Asset Management And Condition Based Maintenance Strategies To Ensure Maintenance Of Rolling Stock, Equipment And Maintenance Facilities Can Be Optimally Delivered

8:05 Creating the Best Value for the Life of an Asset - Whole Life Costing And Tracking From Rail Car Design Through To Maintenance Shop
- Reduction of asset downtime as a key performance indicator for transit agencies and operators
- Factoring train design into a comprehensive maintenance plan and scheme to optimize train maintenance
- Using data analytics to anticipate and schedule maintenance activities before failures occur
- Optimizing the cost of the asset over its total life and decreasing operational downtime

Examples using the Avelia Liberty next generation high-speed trains for Amtrak and the Avelia Pendolino for Virgin’s West Coast Main Line will illustrate these concepts to increase rail asset availability and decrease train immobilization time.

Nicolas Flix, Maintenance Engineering Director, Services, North America – Alstom

12:55 Questions & Discussion

REAL LIFE MAINTENANCE EXPERIENCES FROM ROLLING STOCK OPERATORS

- FROM THE BODY OF THE VEHICLE AND BEYOND

14:00 Linking Maintenance Planning with the Evolution of Your Fleet - Devising Successful Maintenance Strategies for Managing and Modernizing an Ageing Fleet and Transitioning to a New Fleet
- MTA’s Metro Fleet Replacement and Train Control Project
- Ageing Fleet – Managing Changing Maintenance Needs Over Time
  - Work Orders
  - Trend Analysis – Operational On Time Performance
- Ageing Fleet – After Market Equipment
- System Modernization Over the Life of the Fleet
- Ageing Fleet – Strategically Targeted Overhauls to Increase Fleet Reliability
- New Fleet – Design/Performance Criteria to Ensure Long-term Maintainability and Lower Life Cycle Costs
- Stakeholder Input
- Incorporating Maintenance Lessons Learned
- New Fleet – Technology Considerations
  - Passenger Enhancements
  - Maintenance Enhancements
- New Fleet – Decommissioning of Old Fleet and Transitioning to New Fleet
  - Railcar Considerations
  - Wayside Considerations
- New Fleet – Maintenance Personnel
  - Mechanical to Software - Assessing the Need for New Positions
  - Recruiting New Employees
- New Fleet – Manuals and Training to Support a Successful Maintenance Program
  - Manuals
  - Training Maintenance Staff
- New Fleet – Warranty and Parts Support
- New Fleet – Monitoring Reliability Targets and Reporting
- Key Takeaways

Vernon G. Hartscock, PMR Deputy Chief/Chief Engineer, Maryland Transit Administration

14:40 Questions & Discussion

14:45 Case Study - Utah Transit Authority Light Rail Overhaul Program
- Extending the useful life of the light rail vehicle
- Performing the work in-house
- Challenges of the program
- What has been accomplished and where we are going

Kyle Stockley, Program Manager, Vehicle Overhaul, Utah Transit Authority

15:25 Questions & Discussion

REAL LIFE MAINTENANCE EXPERIENCES FROM ROLLING STOCK OPERATORS

- R46: Master Controller Modernization/New design for original legacy Controller
- R68: Using modern machining techniques to design complete new brake control manifolds in original design envelope/footprint and lower costs by 70% to end user
- R46,R62,R68: By using modern CMM measuring, to reverse engineer original obsolete cast sub components and change to a 4 axis machined component, which operates exactly the same, in same footprint. No longer will authorities be faced with the challenge of lost and destroyed molds/tooling of legacy components by OEM Manufacturers. Digitizing these components means they last in perpetuity as “code”.

Richard Stelmach, Deputy Director, NYCT Programs, Knorr Brake

16:40 Questions & Discussion

REAL LIFE MAINTENANCE EXPERIENCES FROM ROLLING STOCK OPERATORS

- TTC – Brief History/ITS/EE
- New TR (Toronto Rocket) train
- Condition Based Maintenance (CBM)
- Adapting line specific capacity configuration
- Adapting to city policies and international social life: Adapting to regulations (overview of open design that allowed to adapt effectively)

Guennadi Moussienko, Assistant Manager, Rail Vehicle Engineering, Toronto Transit Commission

17:20 Questions & Discussion

REAL LIFE MAINTENANCE EXPERIENCES FROM ROLLING STOCK OPERATORS

- Focus areas to consider when thinking about a technology leap forward
- Highest impact shortcomings that ruin technology projects
- Burying the myth of the Return on Investment on Technology
- Lessons learned from some Transit Authorities’ real experiences [real cases]

Gorka Parada, CEO, NEM Solutions USA

17:45 Chair’s Conclusion to Day One

17:50 Networking Drinks Reception in the Exhibition Area
Moving To Condition-Based And Preventative Maintenance Technologies - Showcasing Results, Trends And Railroad Information And Data – Measuring The Impact On The Operational Performance Of Their Programs And Cost Savings Achieved

11:20 WHEELS: Assessing the Evolution and Performance of Predictive Maintenance Technologies For Holistic Wheel Inspection (Tread and Flange)
- Describing the evolution of devices that are available for in-wheel brake inspection (e.g. devices that use sound and noise emissions/optic systems using cameras and lasers) to verify defects in the wheel profile.
- What technologies are available in the market and how they are performing?
- What level of measurement and accuracy do they allow?
- Impact of track train dynamics and the behaviour of rolling stock on the tracks under different conditions, different actual loads with profile etc.

Speaker(s) to be confirmed

12:00 Real World Application of Self-Powered, Onboard Wireless Condition Based Monitoring - New York City Transit (NYCT) Case Study
This presentation will cover the application and benefits of the utilization of Perpetuum’s energy harvester powered condition based monitoring solutions on the NYCT #7 R188 trains, Flushing Meadows Line after 1 year use. Highlighted will be the results, actions and benefits from real-time onboard monitoring of Wheel Health (WH), Bearing Health (BHI) and Track Health (THI), with a more in-depth look at an example of the benefits realized from Track Health monitoring.

The presentation will also review additional measurement modules now available which include Gearbox and Traction Motor Health (GHI / MHI) and Rough Ride (RRI) which is a measure of comfort passenger experience as a result of in motion car body dynamics.

Keith Abele, Sr. Director, Business Development, Perpetuum Rail

12:25 Questions & Discussion

12:30 Lunch in the Networking Exhibition Area

INTERNATIONAL CASE STUDY
13:30 Implementing a Change Management Strategy to Embed CBM Processes and Ensure Workforce Buy-In
Introduction of CBM can yield a great competitive advantage for any operator, but the industry can be resistant to change. What are the most effective methods for driving change from the bottom up?
- Identify the advantages of predictive maintenance to demonstrate its tangible benefits
- Implement a communication strategy to break down the workforce’s barriers to change
- Embed changes in process and effectively transfer knowledge to ensure a motivated and competent workforce

Wan Jui Lee, Data Scientist, Dutch Railways

14:10 Questions & Discussion

PREVENTATIVE MAINTENANCE BUSINESS CASE STUDIES – HOW ARE ROLLING STOCK OPERATORS IN NORTH AMERICA BENEFITING FROM PREVENTATIVE MAINTENANCE TECHNIQUES
Maintenance Case Study – Axle And Bogies
14:15 How European Operators Are Benefiting From Actionable Information When Planning Bogie Maintenance And What Lessons Can Be Applied To Operators In USA?
Bogie maintenance is a strong cost driver for railway operators where one maintenance stop costs several thousands of dollars. At the same time, statistics show that 90% of railway wheel bearings could have run longer between maintenance than they do today. But as bearings are safety-critical components, operators cannot take the risk of failure and extend maintenance interval without the approval from the bearing manufacturer. To understand bearing damages through vibration analysis requires reliable, well proven algorithms. Several European railway operators are today using SKF Insight Rail as the way to reduce maintenance cost. It helps to avoid unplanned stops and downtime and some time supports reliable extension of bearing maintenance intervals. This presentation will discuss:
- The importance of correct, actionable information
- Open system architectures allowing integration of different monitoring systems
- Cost savings enabled through efficient maintenance planning
- Flexible financial models as a way to reduce entry barriers to new technology

Maurizio Giovannelli, Global Business Development Manager, SKF Insight Rail, AB SKF

14:45 Questions & Discussion

15:05 Questions & Discussion

15:15 Networking Refreshment Break

15:45 Diagnosis of Traction Motors through Analysis of Torsional Vibrations with Speed Sensor Pickup
The most effective management of the life cycle of a traction motor is accomplished with the most accurate information of its current state. By using the timing information of a speed sensor on the shaft of the motor, often for example the existing anti-skid speed sensor, it is possible to determine the condition of the traction motor using the two indicators, Mechanical Stress and Damage. These are calculated by evaluating the regularity or irregularity of the torsional vibrations present in the shaft. This method is far superior to vibration techniques using accelerometers, because a direct measurement of the torsional vibrations is made whereby an accelerometer detects the indirect effect of these vibrations transmitted through the housing, with losses and distortions. With this sensitivity, the degradation of the traction motor can be detected well before it becomes a serious problem, giving time for maintenance to be scheduled, and extending the life of the motor. As a result, a transition from time-based to predictive maintenance is made, reducing the frequency of teardown for overhaul or rebuild.

John Calkins, System Development Engineer, TE Connectivity

16:05 Questions & Discussion

16:10 Information Sharing Panel for Rail Operators and Technology Suppliers
- Identifying the maintenance priorities of operators in light, heavy and commuter rail
- Where would operators like efficiencies to be made?
- What are some of their biggest concerns and what systems actually need fixing?
- What other new equipment are suppliers proposing and assessing the reliability of this equipment – what impact will this have on maintenance costs and operational performance?
- How can systems be monitored best to improve service levels and passenger comfort?

16:30 Chairs Conclusion and Close of Conference
I Would Like To Register The Delegate(s) Below For The 2 Day Conference

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March 27–28, 2018
Chicago, IL

Details

Please use CAPITALS - photocopy for multiple delegates

Delegate 1

Mr  Dr  Miss  Ms  Mrs  Other:

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Position
Organization
Email

Telephone
Address For Invoice Purposes
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4 Delegates: *15% OFF (Discount code: GROUP4)
5+ Delegates: *20% OFF (Discount code: GROUP5)

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Enquiries And More Information

Should you have any enquiries or if you would like to request more information contact our friendly Customer Service Team on (1) 800 721 3915 or visit the conference website at www.passenger-rolling-stock-maintenance.com

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