 Applying New Technologies, Interpreting Data & Optimizing Process To Target Your Maintenance More Effectively

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NORTH AMERICAN PASSENGER
Rolling Stock Maintenance Summit 2019

MARCH 19-20, 2019 - REGENCY HYATT MCCORMICK PLACE, CHICAGO, IL

Learn How To Bring Down Operating Costs Whilst Providing Better Service

Delivering A Detailed Roadmap For Organizations On How To Integrate New Positive Train Control Technologies With Your Existing Maintenance Systems Without Disruption To Services And Implement Predictive And Condition Based Maintenance Systems And Technologies To Achieve Cheaper Maintenance, Better Customer Service, And Better Reliability

✓ Evolving Workforce Strategies That Will Enable Agencies To Continue To Maintain And Operate Rolling Stock Through Changing Maintenance Technologies And New State Of The Art Systems

✓ Encouraging Multi-Agency Collaboration On Identifying Solutions To Big Picture Funding And Capital Investment Issues And Balancing Maintenance Requirements With The Budget

PRE-EVENT WORKSHOPS: MARCH 18TH 2019

MORNING
IP And Big Data Workshop:
Understanding The Complicated World Of Digital Innovation And How It Relates To Rolling Stock Maintenance

AFTERNOON
Workforce Working Group:
Addressing The Skills Gap In Rolling Stock Maintenance Teams

+ Multiple Registration Rates Available
+ Attendees Will Take Back All Conference Presentation Materials

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perpetuum

www.passenger-rolling-stock-maintenance.com
The key to any solid maintenance program is the extension of the life expectancy of your vehicles. A good maintenance program must extend beyond the traditional useful life period of a vehicle.

The North American Passenger Rolling Stock Maintenance Summit will enable transit agencies and other rolling stock operators to gain new information on current trends and maintenance practices and enable them to identify the most suitable approaches that would contribute to reliability. Our Summit, taking place on March 18-20 in Chicago, will enable you to take back information to help you make decisions and control costs. Information sharing with colleagues in other agencies will enable you to better manage your priorities within the maintenance department and improve your overall maintenance schedule.

PRE-EVENT WORKSHOPS: MARCH 18TH 2019

PRE-EVENT MORNING WORKSHOP
IP AND BIG DATA WORKSHOP 10:30 TO 13:00
Understanding The Complicated World Of Digital Innovation And How It Relates To Rolling Stock Maintenance
It is now common knowledge that new technologies can revolutionize the way we maintain rolling stocks, enabling significant cost savings whilst improving safety and reliability of services. What is less well understood is how to navigate this new world of multiple IT systems, massive data and algorithms. The agencies, academics and technology providers attending this workshop will identify common challenges and issues and find solutions to their questions in the ever-changing world of Maintenance Digitalization.

Part One: Understanding The Fundamentals Of IP And Computer Networks
• Explaining common terms such as routing gateways and IP addresses
• Answering your questions on IT best practices
• How does everything interact?

Part Two: Making Sense Of Big Data
• Key Performance Indicators to re-focus your maintenance activities
• Which data is relevant, and why? And how should it be used?
• What methods are there for an organization to improve quality of data?
• How to get rid of random input and standardize it without making the system too cumbersome

PRE-EVENT AFTERNOON WORKSHOP
WORKFORCE WORKING GROUP 14:30 TO 17:00
Addressing The Skills Gap In Rolling Stock Maintenance Teams
This working group will be discussing one of the most pressing issues in modern rail maintenance, the skills gap that is hindering modern maintenance practices and processes.

This workshop will be looking at finding solutions to the following major challenges:
• How to evolve a workforce to be able to maintain and operate rolling stock as new technologies are introduced and implemented
• How to attract young talent to the industry

Part One: Retraining And Job Reclassification
• Acclimatizing your workforce to the changing technology of the rolling stock that you are maintaining
• Job reclassification
• Dealing with collective bargaining agreements and the unions
• Retraining methods, in house or outsource?

Part Two: Attracting Young Talent To The Rail Industry
• Learning from other industries
• Industry and technical schools partnerships
• Selling the sexy side of rail
• Case studies of successful recruitment campaigns

Sponsorship & Exhibition Opportunities
Please contact the LBCG Team: sponsorship@american-business-conferences.com for details.
## AGENDA AT A GLANCE

### DAY 1

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<td>Asset Management And Maintenance Strategy Continuous Improvement</td>
<td>Analyzing The Industry Path To Better Maintenance Strategies To Cut Cost Whilst Becoming More Reliable</td>
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<td>Forming A Winning Maintenance Strategy From The Start To</td>
<td>Prolong The Lifecycle Of Your Rolling Stock And Cut Maintenance Cost</td>
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<td>How To Stay Efficient and Find New Ways Of Fixing Things By</td>
<td>Performing Task Analysis Using Teachings In Six Sigma</td>
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<td>Ensuring Your Workforce Adapts To The Changing Technologies Of Your</td>
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<td>Creating The Next Generation Of Rolling Stock Engineers</td>
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<td>Comparing And Contrasting Cost Benefits Of Midlife Overhauls Versus</td>
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<td>How To Ensure Minimization Of Rolling Stock Downtime Through More</td>
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<td>Understanding The Impact Of, And Adapting To The Latest Regulations</td>
<td>Concerning The Rolling Stock Industry, Including Map 21, Ptc Requirements And Buy America</td>
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<td>Extracting The Maximum Value From Your Taxpayer Financed Maintenance</td>
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### DAY 2

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<td>How To Optimize Your Maintenance With Predictive Analytics - Making</td>
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<td>Case Study Following The Successful Implementation Of</td>
<td>Predictive Maintenance To Successful Outcome Giving Almost 100% Reliability Of Vehicles (Unless They Meet With An Accident)</td>
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<td>Condition Based Maintenance - Case Study Looking At Key Performance</td>
<td>Indicators System Pay Back Following Over 10 Years Of Continuous Maintenance Optimisation</td>
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<td>How To Make The Most Of Track/Wheel Interface Systems To Make Your</td>
<td>Equipment Last Longer And Your Customers Happier</td>
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<td>Best Practices In Configuration Management - Ensuring That Changes</td>
<td>Will Not Affect The Rest Of The System</td>
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<td>Modernising Aging Fleets With New Technology</td>
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<td>How To Rollout A Positive Train Control System With No Disruption To</td>
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<td>Managing Reliability Centred Maintenance During The Implementation Of</td>
<td>Communication-Based Train Control Without Affecting Service Reliability</td>
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<td>How To Be Able To Afford Passenger Comfort Technology Such As Vibration,</td>
<td>Acoustics And Wi-Fi Solutions</td>
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<tr>
<td>How Can An Agency Prepare To Transition its Maintenance For The Winter</td>
<td>And Summer Months In Order To Avoid Service Disruption</td>
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**This conference addressed all of the key issues in an engaging and fresh way - it was good to meet with my peers to discuss industry developments, both present and for the future also.**

**Chicago Transit Authority**

**This conference for me was an eye opener on what the rail industry really needs.**

**Canarail**

the industry change from a basic mechanic with a basic tool- box to somebody that is working on a very complex, modern machine with complex on board equipment? Is the rail- tenance industry stepping up to meet these challenges? Equipment is changing and so we need to adjust in terms of how to maintain it. What does the rolling stock industry need to do when it comes to employee training, employee positions, categories, skill sets, and other factors such as human resources and union workforce issues? 
• How to help your workforce to evolve with your systems changes
• What retraining is required?
• What is most optimal? In -house training or external training?
• How to deal with unions’ issues on job reclassification

Questions & Discussion
14:00 Creating The Next Generation Of Rolling Stock Engineers

• Attracting qualified engineers with software skills, what are the regional differences?
• How do you attract young, new talent?
• What programs are out there to promote the rail industry to the next generation and show that the rail industry has adopted leading edge technologies?
• What can the industry do collectively to improve talent acquisition and compete with other more attractive industries such as aerospace?

Devlin Rouse, Director, Passenger Rail Division - Office of Railroad Safety, Federal Railroad Administration, US Dept. of Transportation

Questions & Discussion
14:25
14:30 The Digital And Personnel Challenges Of Modelling Data From More Than 55,000 Rail Cars

In 12 years NEM Solutions has built a platform that currently provides predictive analytics for over 55,000 rail cars. This presentation will take us through the journey NEM Solutions has travelled in the Predictive Analytics world. From inception to the current scenario, we will cover the main challenges faced and the solutions that have been implemented.

• Access to data: myth or reality?
• Scalability of the platform: how to cope with over 55,000 rail cars?
• Condition based maintenance scheduling: a reality today
• Success stories: predictive analytics failure detections.
• North America Transit Agencies & Predictive Analytics: what needs to be done?

Gorka Parada, CEO, NEM Solutions

Questions & Discussion
14:50
14:55 Refreshment Break In The Networking And Exhibition Area

UNDERSTANDING THE IMPACT OF THE REGULATORY LANDSCAPE ON THE INDUSTRY AND IDENTIFYING TECHNICAL AND FINANCIAL SOLUTIONS TO THE COMPLIANCE CHALLENGES POSED BY FEDERAL GOVERNMENT

17:00 Understanding The Impact Of, And Adapting To The Latest Regulations Concerning The Rolling Stock Industry, Including MAP 21, PTC Requirements And Buy America

How rolling stock is being maintained clearly impacts new system-wide reliability performance measures for the transit industry that were set by federal government in 2018, and are due to be made public next year. What new issues does the compliance process raise for maintenance? How is the industry taking account of the different aspects of the vehicles that will actually meet the targets and how is this making them change their maintenance priorities and their recapitalization priorities?

• Compliance with the Buy America requirements when purchasing parts for railcars
• Challenges in sourcing cost-effective suppliers that meet all the needs of your system and also meet the Buy America constraints
• MAP-21 and the state of good repair initiative
• PTC Requirements update

Questions & Discussion
17:25
17:20 Extraction Of The Maximum Value From Your Taxpayer Financed Maintenance Budget And Maximising Opportunities For Obtaining New Funds

How to predict how much budget will be needed for your maintenance activities to avoid a deficit in your accounts
• How to increase your opportunities to get funding
• How to formulate a timely proposal or application in response to a grant opportunity
• Understanding and responding to the scope of the available grants, quickly
• How do you come up with required sums for capital investments?

Questions & Discussion
17:45
17:30 Ensuring Your Maintenance Workforce Is Equipped To Adapt To The Changing Technologies Of Your Rolling Stock

With all these emerging technologies for maintenance, the industry is undergoing rapid change and the required skill sets are not currently in through the door. How does...

Questions & Discussion
15:25 Comparing And Contrasting The Cost Benefits Of Midlife Overhauls Versus Series Of Overhaul Campaigns And Buying New Stock

The cost to continue to maintain and keep vehicles in good service gets high as you approach the midlife of the vehicle and you reach the point where, it may be more viable to gain a midlife overhaul and buy new ones. Alternatively it may be more cost effective to do a series of overhaul cam- paigns throughout the lifecycle of the asset and overhaul specific systems on a timely basis in order that the asset is taken out of service for a limited period of time only. With major midlife overhauls done halfway through the lifecycle of the rolling stock, and addressing all aspects of the vehicle, you lose possession of the asset for sometimes a month or several months until the overhaul is done.

• Analysis of the benefits and costs of each strategy
• Establishing the feasibility point for a major overhaul versus new vehicle purchase from a financial perspective
• What are the challenges of both strategies?
• Which is a strategy better than the other, and why?
• Is it better and easier to just buy new trains?
• Understanding the capital planning perspective. If you replace the car too soon, you don’t get as much out of your capital investment. If you replace it too late, you will lose possession of the asset for sometimes a month or several months until the overhaul is done.

Questions & Discussion
15:45
15:00 Management And Optimization Of Maintenance Processes

LONG TERM MAINTENANCE OVERHAUL STRATEGIES - MINIMIZING THE DOWNTIME WHILST ACHIEVING MAJOR REPAIRS

15:25
15:00 Preparation A Comprehensive Maintenance Strategy From Day One Of The Procurement Phase To Prolong The Lifecycle Of Your Rolling Stock And Cut Maintenance Costs Whilst Ensuring Greater Reliability

• What are the current best practices in rolling stock maintenance strategy?
• How can we continuously improve our maintenance strategies?
• What is the future vision for rolling stock asset management and what will this deliver to agencies and customers?

Vernon Hartsock, Chief Engineer, Maryland Transit Administration

Questions & Discussion
09:55
09:50 Long Term Maintenance Overhaul Strategies - Identifying Successful Lifecycle Maintenance Strategies To Reduce Recapitalization Priorities

• Determining long term overhaul strategies to reduce recapitalization priorities
• Identifying successful lifecycle maintenance strategies to reduce spare ratio requirements
• What kinds of tools are available to help with lifecycle analysis?

Questions & Discussion
10:25
10:00 Pricing Break In The Networking And Exhibition Area

Case Study: Utilizing Six Sigma In Maintenance

10:30
11:00 Session Reserved For Sponsorship

Keith Abate, Sr. Director of Sales and Business Development, Perpetuum

Questions & Discussion
10:25
09:50 Chair’s Welcome And Introduction

Clive Cashin, Rolling Stock Manager, Serco Middle East

Questions & Discussion
09:15
08:45 Coffee and Registration
Identifying Ways To Maximize Use Of Your Data In Order To Make Smarter Decisions For Managing Your Maintenance Effectively

CASE STUDY - FTA / NYCT SAFETY IN RESILIENCY PROGRAM
11:45 | How To Make The Most Of Track/Wheel Interface Systems To Make Your Equipment Last Longer And Your Customers Happier
- Understand how issues on the track may influence the train or issues on the train may influence the track
- Improve the track geometry map
- Cost benefit analyses
Albert Wahba, Program Leader; The Rail Vehicle and Track Optimization (RVTO) program, National Research Council Canada

Questions & Discussion

CASE STUDY - COMMUNICATION BASED TRAIN CONTROL
14:15 | Managing Reliability Centred Maintenance During The Implementation Of Communication-Based Train Control Without Affecting Service Reliability
This real-life case study will describe migration from one maintenance system to another during a CBTC implementation.
- What do you introduce new maintenance technologies and spare parts management when you put in a CBTC system?
- What systems and technologies are out there and what are their pros and cons?
- How much time does it take to implement new systems and bring them online?
- Evaluating return on investment
Vernon Hartsoc, Chief Engineer, Maryland Transit Administration

Questions & Discussion

SEASONAL PREPAREDNESS PANEL
16:35 | How Can An Agency Prepare To Transition Its Maintenance For The Winter And Summer Months In Order To Avoid Service Disruption
Seasonal preparedness is a very important issue whether this is functioning in extremes of cold temperatures in the winter months and dealing with ice on the rails or preparing for extremely hot temperatures in the summer.
- Approaches in preparing for seasonal service
- Winter months challenges and solutions for maintenance
- Summer months challenges and solutions for maintenance
- What technology is there to help?
Stefan Eisenbach, Director of Business Development, UBI MET

Questions & Discussion

A great event that sparked many interesting discussions between companies interested in achieving the same end goal.

Unipart Rail
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Payment must be received in full prior to the event.
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