

Confirmed Breakout Session Leaders

Subject to Change – Last Updated February 7th, 2022

Various Speakers – National Transportation Safety Board

NTSB Most Wanted List: Railroad Worker Safety

What to Expect During an NTSB Investigation

Nicholas Dryer – BNSF Railway

Tentative Topic: The History and Future of BNSF's

Unmanned Aircraft Systems Program

Professor Nii Attoh-Okine – University of Delaware

Blockchain Technology and Railway Track Maintenance: A

New Perspective

David Wilber, et al. – Vetergy Group

Tentative Topic: Case Study – Engage in an Audience-Led

Investigation to Learn About Human Factors Analysis

Gary Wolf – Wolf Railway Consultants

To Be Confirmed: PSR's Impact on Railroad Maintenance

Hugh Thompson, et al. – FRA Track Research Division

Track structural measurements targeting wide gage

derailments

Rob Casitiglione & Cory Johnson – FRA Human Performance Division

Part 243 Training Rule Workshop

David Kannenberg – FAMES (Fatality Analysis of Maintenance-of-way Employees and Signalmen)

FAMES Findings and Safety Alerts

Various Speakers – ENSCO and FRA

Vision of the Future of FRA's Transportation Technology

Center in Pueblo, CO

Tom Julik, et al. – FRA Technology & Automation Division

FRA's Automated Track Inspection Program: Current

Operations and Listening Discussion for the Future

Tim Elsberry – Railroad Software

Leveraging Digital Tools for Track Inspections

Joy Molony, et al. – Fiber Optic Sensing Association

Advances in Distributed Sensing for Rail Applications

Joe Denny, et al. – TekTracking

Tentative Topic: Leveraging Mobile Applications for Track

Inspections

Marcus Dersch – UIUC RailTec; Cam Stuart – FRA

Spike Failures in Elastic Fastening Systems: An Assessment

of Root Causes and Available Mitigation Measures

Richard Stock – Plasser & Thuerer

Tentative Topic: Rail Damage Mechanics & Potential Safety

Benefits of Rail Milling

Mark Allen – Union Pacific Railroad

Tentative Topic: Meeting the Challenges of a Heavy Grade

and Curve Railroad

Robert Wilson – FRA; Dr. Anish Poudel – TTCi

Current and Future Technologies for Rail Flaw Inspection

Christine Nestor – Zone Guard, Miller Ingenuity

Utilizing Technology to Enhance On-Track Safety

Troy Jackson, D Smith, et al. – USDOT Transportation Safety Institute

Tentative Topic: Safety Management Systems

Safety Leadership

Human Factor Accident Cause System

BowTieXP – Visual Risk Assessment

Andrew Straatveit – FRA

Advanced Risk Modeling Utilizing Pre-Existing Data

Amanda Fletemeyer – MBTA

Tentative Topic: Changing Behavior to Instill a Safety

Culture with Contractor's New to the Rail Industry

Kevin Oldknow – Simon Fraser University

Wheel-Rail Friction Management: Effects on Vehicle-Track

Interaction, Safety, and Asset Life

Robert Wilson – FRA; Speaker; Prof. Dimitri Rizos – Univ. South Carolina, et al.

Rail Neutral Temperature (RNT) Measurement

Technologies

Brian Marquis – VOLPE, et. al.

Tentative Topic: Vehicle Track Interaction and

Simulation/Modeling Applications

Jamie Maguire, et al. – Protran Technology

Tentative Topic: Leveraging Collision Avoidance and

Secondary RWP Warning Systems to Prevent Roadway

Worker Injuries and Fatalities.

Steve Krause – FRA Bridge Division

Bridge Safety for Track Employees: Fall Protection, Intro to

Bridge Inspection, and Open Deck Ties

Various Speakers – Loram

Tentative Topic: Designing Safety into a Unique RMM Fleet

Ken Reed, et al. – TapRoot® Root Cause Analysis

Tentative Topic: Using TapRoot® Root Cause Analysis to

Improve Performance and Prevent Accidents

Robert Wilson, et al. – FRA; Partners from Rutgers, Lehigh and Others

The Future of Predicting Rail Defects

Amanda Emo – FRA

FRA Part 272 Critical Incident Stress Plans and

Engineering Departments

Fatigue Management: FRA's Upcoming Rule and its

Application to Engineering Employees

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Brad Kerchof – Norfolk Southern (Retired)

Switches & Frogs: Inspection, Design, Derailment Prevention, & Effective Maintenance

Adverse High-Rail Profiles in Curves: Identification, Dangers, Correction via Grinding, and a Derailment Case Study

A Panel Discussion: 'From Surviving to Thriving as a Roadmaster' with Three Veteran Track Supervisors

Lance Hawks – FRA Track Division

Tentative Topic: Roadway Worker Safety and Safety Around Roadway Maintenance Machines

Dr. Riley Edwards – UIUC; Richard Dox-Ivey – Railmetrics; Cam Stuart – FRA

Automated Track Change Detection: A More Complete Track Safety Assessment

Various Speakers – Amtrak

Topics to be Determined

Professor Dimitris Rizos – University of South Carolina

Recent Research Projects Including Remote Satellite Sensing for Track Inspection, Vision Systems for Bridge Monitoring, and More

Radim Bruzek – ENSCO; Robert Wilson – FRA

Track Buckle Prevention Software

Kenneth Campbell – Geo-Instruments

Fundamentals of Automated Rail Monitoring During Construction, Tunneling and as a Risk Mitigation Tool When a Failure Occurs.

Brian Keller & Stefan Haas-Heye – Heartwood

Leveraging Advances Virtual Interactive Simulations to Teach Complex Procedures Faster, Safer, and with Less Errors

Mark Montoya – Union Pacific Railroad

Tentative Topic: Analyzing Alinement Rate of Change for Derailment Prevention in Turnout Curves, Spirals, and Compound Curves.

Various Speakers – TTCi

To Be Determined

Alexander Franco, Jr – BNSF Railway

Roadway Worker and Machine Safety Training: Part 243 and Beyond. How do we Truly Ensure our Employees Have the Knowledge and Skills to Work Safely?

Jeffrey Dudley – Traxx Railroad Safety

Railroad Contractor's Cultural Shift to Safety

William Riehl – Genesee & Wyoming

Tentative Topic: Fall Protection

Jay Baillargeon – FRA Track Research, et al.

Artificial Intelligence Applications for Track Inspection

Todd Marklin – Pioneer Lines

Lessons Learned Managing an FRA CRISI Grant Project on a Short Line Railroad.

Shane Stiffler, et al. – FRA Track Division

Track Inspections: Remedial Actions and How to Know Your Inspections are Adequate

Dillon Ondo, Owen Smith, Lance Hawks – FRA Track Division, et al.

Roadway Worker Protection Internal Monitoring Programs

Jamie O'Rourke, et al. – Sperry Rail

How artificial intelligence supports human analysis in identifying, categorizing, and prioritizing suspected rail flaws using data gathered by the non-stop testing process; the safety and efficiency benefits artificial intelligence delivers; and a deep dive into Sperry's Elmer® artificial intelligence tool.

Lawrence Jeffords – FRA Rail Integrity Division

Tentative Topic: CWR Management 101

Timothy Lesniak – MBTA

Tentative Topic: Working Safely in Corridors Shared With Other Railroads and Modes of Transportation.

Tom Leiby – Harsco Rail, Todd Dragland – Genesee & Wyoming Inc

Tentative Topic: Leveraging MRail's Vertical Rail Deflection Measurement Technology to Prioritize Ballast and Surfacing Maintenance.

Larry Warren – FRA PTC Division

Positive Train Control for Maintenance of Way: What it is, How it Works, and Other Things to Know.

Daniel Baker – FRA Track Division, et al.

Automated Track Inspection Test Program Risk Analysis

If you are interested in leading a breakout session at the FRA Track & Railroad Workplace Safety Symposium, please contact FRASymposium@dot.gov.