The Wayback Machine - https://web.archive.org/web/20090320043352/http://www.fra.dot.gov/us/content/412

Research Reports

Printer-Friendly

Reports are listed by their corresponding report numbers starting with the most recent published document. Click on the "Report Number" for a pdf copy of the report, if available. Additionally, all these reports are also available to the U.S. public through the National Technical Information Service in Springfield VA.

Click HERE for reports published prior to 2000.

RESEARCH & DEVELOPMENT (R&D;) REPORTS

REPORT NUMBER	TITLE
DOT/FRA/ORD-09/03	Technology Implications of a Cognitive Task Analysis for Locomotive Engineers
DOT/FRA/ORD-09/02	Field Evaluation of a Wireless Handheld Computer for Rairoad Roadway Workers
DOT/FRA/ORD-09/01	Visualizing Railroad Operations: A Tool for Planning and Monitoring Railroad Traffic
DOT/FRA/ORD-08/04	Validation and Calibration of a Fatigue Assessment Tool for Railroad Work Schedules, Final Report
DOT/FRA/ORD-08/03	Driver Behavior at Highway-Railroad Grade Crossings: A Literature Review from 1990-2006
DOT/FRA/ORD-08/02	An Analysis of the Opportunities for Wireless Technologies in Passenger and Freight Rail Operations
DOT/FRA/ORD-08/01	Bridge Approaches and Track Stiffness
DOT/FRA/ORD-07/29	Development and Application of Methodology for Reliability Assessment of Tank Car Structures: Phase I
DOT/FRA/ORD-07/28	Human Factors in Railroad Operations: Communication and Coordination Demands of Railroad Roadway Worker Activities and Implications for New Technology
DOT/FRA/ORD-07/25	Stub Sill Railroad Tank Car Research Project: Full-Scale Damage Tolerance Test
DOT/FRA/ORD-07/24	Passenger Cab Car Grade Crossing Impact Test Report: Rail Passenger Equipment Impact Tests
DOT/FRA/ORD-07/23	In-Service, Over-the-Road Testing of One Car for Tank Car Operating Environment Study (Phase IIA) Test Results
DOT/FRA/ORD-07/22	Tank Car Operating Environment Study: Phase I
DOT/FRA/ORD-07/21	Rail Crew Resource Management (CRM): The Business Case for CRM Training in the Railroad Industry
DOT/FRA/ORD-07/20	Detailed Modeling of the Train-to-Train Impact Test: Rail Passenger Equipment Impact Tests
DOT/FRA/ORD-07/19	Development of a Preliminary Set of Human Factors Functional Design Guidelines for Remote Control Locomotive Systems
DOT/FRA/ORD-07/18	Repair of Budd Pioneer Coach Car Crush Zones: Rail Passenger Equipment Impact Tests
DOT/FRA/ORD-07/17	In-Track Demonstration of Laser-Treated Rail to Reduce Friction and Wear
DOT/FRA/ORD-07/16	Conceptual Development Impact Overload Detection Devices for Tank Car Service
DOT/FRA/ORD-07/15	Human Error Investigation Software Tool (HEIST)
DOT/FRA/ORD-07/14	The Impact of Participatory Safety Rules Revision on Incident Rates, Liability Claims, and Safety Culture in the U.S. Railroad Industry
DOT/FRA/ORD-07/13	Preliminary Development of a Railroad Dispatcher Taskload Assessment Tool: Identification of Dispatcher Tasks and Data Collection Methods
DOT/FRA/ORD-07/12	Relative Risk of Workload Transitions in Positive Train Control
DOT/FRA/ORD-07/11	Work Schedules and Sleep Patterns of Railroad Dispatchers
DOT/FRA/ORD-07/10	Human-Centered Technologies Tool

Amtrak Exhibit 1016

DOT/FRA/ORD-07/09	Evaluation of the School Street Four-Quadrant Gate/In-Cab Signaling Grade Crossing System
DOT/FRA/ORD-07/08	Analysis of Accelerations Measured During Full-Scale Tank Car Impact Tests
DOT/FRA/ORD-07/07	Human Factors Considerations in the Evaluation of Processor-Based Signal and Train Control Systems
DOT/FRA/ORD-07/06	State-of-the-Art Technologies for Intrusion and Obstacle Detection for Railroad Operations
DOT/FRA/ORD-07/05	Tank Car Reliability Design and Analysis
DOT/FRA/ORD-07/04	Human Factors Guidelines for Intelligent Transportation Systems at the Highway-Rail Intersection - Technical Report
DOT/FRA/ORD-07/03.I	Rail Crew Resource Management (CRM): Pilot Rail CRM Training Development and Implementation
DOT/FRA/ORD-07/01	Yardmasters and Yard Safety in the U.S. Railroad Industry: An Exploratory Study
DOT/FRA/ORD-06/27	Public Education and Enforcement Research Study
DOT/FRA/ORD-06/26	Human Factors Guidance for Intelligent Transportation Systems at the Highway-Rail Intersection
DOT/FRA/ORD-06/25	Work Schedules and Sleep Patterns of Railroad Maintenance of Way Workers
DOT/FRA/ORD-06/24	A Pilot Examination of a Joint Railroad Management-Labor Approach to Root Cause Analysis of Accidents, Incidents, and Close Calls in a Diesel and Car Repair Shop Environment
DOT/FRA/ORD-06/23	Railroad Dispatching Operations: Putting Research into Practice - Workshop Summary
DOT/FRA/ORD-06/21	Validation and Calibration of a Fatigue Assessment Tool for Railroad Work Schedules - Summary Report
DOT/FRA/ORD-06/20	Development of Conventional Cab Car End Structure Designs for Full Scale Testing - Rail Passenger Equipment Impact Tests
DOT/FRA/ORD-06/19	Work Schedules and Sleep Patterns of Railroad Signalmen
DOT/FRA/ORD-06/18	Design and Evaluation of Advanced Systems for Locomotive Crew Emergency Egress
DOT/FRA/ORD-06/17	Application of Ultrasonic Phased Arrays for Rail Flaw Inspection
DOT/FRA/ORD-06/16	Impact Performance of Draft Gears in 263,000 Pound Gross Rail Load and 286,000 Pound Gross Rail Load Tank Car Service
DOT/FRA/ORD-06/15	Fatigue Behavior of AAR Class A Railroad Wheel Steel at Ambient and Elevated Temperatures
DOT/FRA/ORD-06/14	Use of Dynamic Rail Deflection as a Means of Determining Changes in Top of Rail Friction
DOT/FRA/ORD-06/13	Development of Gage Widening Projection Parameter for the Deployable Gage Restraint Measurement System
DOT/FRA/ORD-06/12	Damage Assessment of Railroad Tank Cars Involved in Accidents: Phase I - Literature Search and Evaluation.
DOT/FRA/ORD-06/11	Survivability of Railroad Tank Car Top Fittings in Rollover Scenario Derailments
DOT/FRA/ORD-06/10	Rail Crew Resource Management (CRM): Survey of Teams in the Railroad Operating Environment and Identification of Available CRM Training Methods
DOT/FRA/ORD-06/09	A Comparative Risk Assessment of Remote Control Locomotive Operations versus Conventional Yard Switching Operations
DOT/FRA/ORD-06/08	Remote Control Locomotive Operations: Results of Focus Groups with Remote Control Operators in the United States and Canada
DOT/FRA/ORD-06/07.I	Investigation of Cracks in Acela Coach Car Brake Discs: Test and Analysis Volume I - Final Report
DOT/FRA/ORD-06/07.II	Investigation of Cracks in Acela Coach Car Brake Discs: Test and Analysis Volume II - Appendices
DOT/FRA/ORD-06/05	Human Factors Root Cause Analysis of Accidents/Incidents Involving Remote Control Locomotive Operations
DOT/FRA/ORD-06/04.III	Variable Amplitude Fatigue Crack Growth Characteristics of Railroad Tank Car Steel: Volume III
DOT/FRA/ORD-06/04.II	Fatigue Crack Growth Behavior of Railroad Tank Car Steel TC-128B Subjected to Various Environments: Volume II - Appendices
DOT/FRA/ORD-06/04.I	Fatigue Crack Growth Behavior of Railroad Tank Car Steel TC-128B Subjected to Various Environments: Volume I

DOT/FRA/ORD-06/03	Highway-Rail Grade Crossing Safety Research: Railroad Infrastructure Trespassing Detection Systems Research in Pittsford, New York.
DOT/FRA/ORD-06/02	San Joaquin, California, High-Speed Rail Grade Crossing Data Acquisition Characteristics, Methodology, and Risk Assessment
DOT/FRA/ORD-05/06	Evaluation of Options for Improving Amtrak's Passenger Accountability System
DOT/FRA/ORD-05/05	Real-Time Measurement of Track Modulus from a Moving Car
DOT/FRA/ORD-05/04	Ground Penetrating Radar for Railroad Track Substructure Evaluation
DOT/FRA/ORD-05/03	Comparative Safety of the Transport of High-Level Radioactive Materials on Dedicated, Key and Regular Trains - Technical Study
DOT/FRA/ORD-05/01	Fiberglass Wrapped Tie Performance Evaluation Report
DOT/FRA/ORD-04/18	Human Factors Phase III: Effects of Train Control Technology on Operator Performance
DOT/FRA/ORD-04/17	Human Factors Phase IV: Risk Analysis Tool for New Train Control Technology
DOT/FRA/ORD-04/16	On-line High-speed Rail Defect Detection
DOT/FRA/ORD-04/15-II	North Carolina DOT Traffic Separation Studies: Volume II - Findings by Community
DOT/FRA/ORD-04/15-I	North Carolina DOT Traffic Separation Studies: Volume I - Assessment
DOT/FRA/ORD-04/13.i	Supporting Railroad Roadway Worker Communications with a Wireless Handheld Computer: Volume I - Usability for the Roadway Worker
DOT/FRA/ORD-04/13.ii	Supporting Railroad Roadway Worker Communications with a Wireless Handheld Computer: Volume II - Impact on Dispatcher Performance
DOT/FRA/ORD-04/12	Preview Information in Cab Displays for High-Speed Locomotives
DOT/FRA/ORD-04/11	Impact of Data Link Technology on Railroad Dispatching Operations
DOT/FRA/ORD-04/10	Effects of Supervisory Train Control Technology on Operator Attention
DOT/FRA/ORD-04/09	Report Assigned two numbers. See DOT/FRA/ORD-04/07 Below.
DOT/FRA/ORD-04/08	Reducing the Adverse Effects of Wheel Impacts on Special Trackwork Foundations
DOT/FRA/ORD-04/07	Locomotive-Based Top of Rail Friction Control Implementation Results and Issues: Phase 1: Atomized Spray/Friction Control Product
DOT/FRA/ORD-04/05	See DOT/FRA/RDV-04/02
DOT/FRA/ORD-04/03	Proceedings of the Human Factors Workshop: Improving Railroad Safety Through Understanding Close Calls
DOT/FRA/ORD-04/02.I	Transportation Planning for the Richmond Charlotte Railroad Corridor: Volume I - Executive Summary & Main Report
DOT/FRA/ORD-04/02.II	Transportation Planning for the Richmond Charlotte Railroad Corridor: Volume I - Appendices
DOT/FRA/ORD-04/01	Optimizing Staffing Levels and Schedules for Railroad Dispatching Centers
DOT/FRA/ORD-03/29	Gage Restraint Measurement System Comparison Tests: Railbound and Hi-Rail Vehicles
DOT/FRA/ORD-03/28	Determination of a Sound Level for Railroad Horn Regulatory Compliance
DOT/FRA/ORD-03/26	See Report DOT/FRA/RDV-04/02
DOT/FRA/ORD-03/25	Tread Metal Buildup on Railroad Freight Car Wheels – Dynamometer Simulation
DOT/FRA/ORD-03/24	Estimation of Residual Stresses in Railroad Commuter Cars Wheels Following Manufacture
DOT/FRA/ORD-03/22	Revised Railroad Tank Car Damage Assessment Guidelines for Pressure Tank Cars
DOT/FRA/ORD-03/21	Railroad Tank Relief Valve Requirements for Liquid PIH Lading
DOT/FRA/ORD-03/19	Fatigue Behavior of Railcar Wheel Steel at Ambient and Elevated Temperature
DOT/FRA/ORD-03/18	Passenger Train Grade Crossing Impact Tests: Test Procedures, Instrumentation and Data
DOT/FRA/ORD-03/17.i	Passenger Rail Train-to-Train Impact Test Volume I Overview and Selected Results
DOT/FRA/ORD-03/17.ii	Passenger Rail Train-to-Train Impact Test Volume II Summary of Occupant Protection Program
DOT/FRA/ORD-03/17.iii	Passenger Rail Train to Train Impact Test Volume III

	Test Procedures, Instrumentation, and Data
DOT/FRA/ORD-03/16	Catalog of "Common Use" Rail Corridors
DOT/FRA/ORD-03/15	Human Reliability Analysis in Support of Risk Assessment for Positive Train Control
DOT/FRA/ORD-03/14	Commercial-Off-the-Shelf (COTS) Hardware and Software for Train Control Applications: System Safety Considerations
DOT/FRA/ORD-03/13	Vertical Track Modulus in Plastic Composite Tie Test Zones at FAST
DOT/FRA/ORD-03/12	Railroad Dispatcher Communications Training Materials
DOT/FRA/ORD-03/09	Selection of Railroad Dispatcher Candidates
DOT/FRA/ORD-03/08	Documentation of Deformation from Passenger Rail Two-Car Impact Test
DOT/FRA/ORD-03/07	Evaluation of Concepts for Locomotive: Crew Egress
DOT/FRA/ORD-03/06	Commuter Rail Seat Testing and Analysisof Facing Seats
DOT/FRA/ORD-03/05	Crashworthiness Design Modifications for Locomotive and Cab Car Anticlimbing Systems
DOT/FRA/ORD-03/04	Evaluation of Alternative Detection Technologies for Trains and Highway Vehicles at Highway Rail Intersections
DOT/FRA/ORD-03/03	A Hybrid Active/Passive Exhaust Noise Control System (APECS) for Locomotives
DOT/FRA/ORD-03/02	The Effect of Installation Location on Railroad Horn Sound Levels
DOT/FRA/ORD-03/01	General Health Effects of Transportation Noise
DOT/FRA/ORD-02/08	Evaluation of Railroad Cab Car End Beam Designs: Rail Passenger Equipment Collision Tests
DOT/FRA/ORD-02/06	Human-Centered Incident Investigation Methods for Railroad Industry
DOT/FRA/ORD-02/04	Damage Assessment of Railroad Tank Cars Involved in Accidents: Phase II - Modeling and Validation
DOT/FRA/ORD-02/03	Locomotive Crashworthiness Research: Locomotive Crew Egress Evaluation
DOT/FRA/ORD-02/01	Rail Commuter Vehicle Curving Performance
DOT/FRA/ORD-01/23	Locomotive Crashworthiness Research: Modeling, Simulation, and Validation
DOT/FRA/ORD-01/22-I	Passenger Rail Two-Car Impact Test, Volume I: Overview and Selected Results
DOT/FRA/ORD-01/22-II	Passenger Rail Two-Car Impact Test, Volume II: Summary of Occupant Protection Program
DOT/FRA/ORD-01/22-III	Passenger Rail Two-Car Impact Test, Volume III: Test Procedures, Instrumentation, and Data
DOT/FRA/ORD-01/21.i	Evaluation of Semi-Empirical Analyses for Railroad Tank Car Puncture Velocity, Part I: Correlations with Experimental Data
DOT/FRA/ORD-01/21.ii	Evaluation of Semi-Empirical Analyses for Railroad Tank Car Puncture Velocity, Part II: Correlations with Engineering Analyses
DOT/FRA/ORD-01/20	An Examination of Railroad Yard Worker Safety
DOT/FRA/ORD-01/18	Progress in Rail Research Integrity Research
DOT/FRA/ORD-01/16	Fire Safety of Passenger Trains Phase II: Application of Fire Hazard Analysis Techniques
DOT/FRA/ORD-01/15	Steel Alloys with Lower Bainite Microstructures for Use in Railroad Cars and Track
DOT/FRA/ORD-01/14	Effects Of Coupler Height Mismatch On The Structural Integrity Of Railroad Tank Car Stub Sills
DOT/FRA/ORD-01/13	Intruder and Obstacle Detection Systems (IODS) for Railroads - 1998 Requirements Workshop
DOT/FRA/ORD-01/12	Aerodynamic Effects of High-Speed Passenger Trains on Other Trains: Safety of High-Speed Ground Transportation Systems
DOT/FRA/ORD-01/08	A Preliminary Examination of Railroad Dispatcher Workload, Stress, and Fatigue
DOT/FRA/ORD-01/07	Safety of Railroad Passenger Vehicle Dynamics: OMNISIM Simulation and Test Correlations for Passenger Rail Cars

DOT/FRA/ORD-01/06	Commuter Rail Seat Testing and Analysis: Railroad Systems Safety
DOT/FRA/ORD-01/05	Safety of Railroad Passenger Vehicle Dynamics: Final Summary Report
DOT/FRA/ORD-01/04	Railroad Tank Car Nondestructive Methods Evaluation
DOT/FRA/ORD-01/03	

Freight Railroading / Research & Development

Last Updated: Feb. 26, 2009