



Lytx and AlertMeter at Delta Air Lines Onboard Services NAFMP Solution Series



February 11, 2026

Slides & Recording



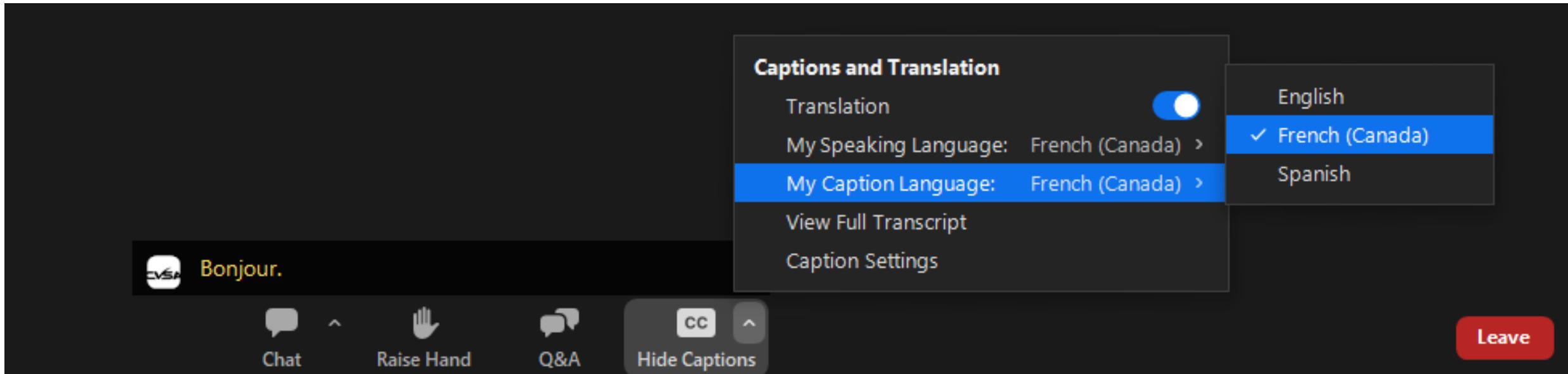
Slides are available **now** at
nafmp.org/events/

Recording will be available afterwards at
nafmp.org/webinars/

Zoom Automated Captions Available



Use the Captions and Translation function at the bottom of your Zoom panel to enable automated English captions or translation in French or Spanish



Featured Speaker



Jeffrey Sease
Chief Operating Officer

Predictive Safety
predictivesafety.com

Jeff.Sease@PredictiveSafety.com
+1-303-902-9511

Featured Speaker



Kevin Cho

Enterprise Senior Client Success Manager

Lytx, Inc

lytx.com

Kevin.Cho@Lytx.com

+1-858-290-4640

Featured Speaker



Rachelle Allen, CSP

Regional Manager Onboard Services Safety and Security

Delta Airlines

delta.com

Rachelle.Allen@Delta.com

+1-470-787-9173

Host



Rodolfo Giacoman

Fatigue Management Specialist

Commercial Vehicle Safety Alliance

cvsa.org

Rodolfo.Giacoman@CVSA.org

+1-202-998-1830

1. Fatigue Management and Vendor Solutions
2. Lytx and AlertMeter at Delta Air Lines Onboard Services Presentation
3. Questions

Disclaimer



- Neither CVSA nor the NAFMP endorses or recommends any specific product or service
- The claims and system specifications of vendors have not been validated by CVSA or the NAFMP
- Solutions are a key component of a Fatigue Management Program

Fatigue Management Program



➤ Safety Culture

- 1) Education
- 2) Training
- 3) Continuous communications – Including partnerships

➤ Fatigue Risk Management System

- 1) Operations
- 2) Identify risks with processes and controls
 - Predictive, proactive, reactive
 - Sound scheduling & routing practices, sleep disorders management program, and fatigue detection technologies
- 3) Risk assessment
- 4) Measures and countermeasures
- 5) Evaluation

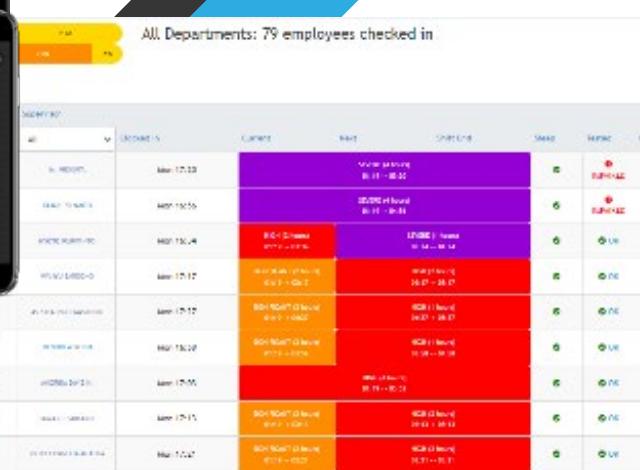
- Tools
 - FMP Template
 - Implementation Manual
 - ROI Calculator
- Courses
 - eLearning Platform
 - PowerPoints with and without audio
 - For carrier's executives, safety managers, dispatchers, instructors, drivers, driver's families, shippers & receivers
- Webinars, Info Sessions & Articles
 - Gallery
 - List
 - Categories
 - Sign up for article notifications
- Podcast
 - The NAFMP Pod
 - Available from eight platforms
- Events
 - Download individual event
 - Subscribe to Calendar of future events

Lytx and AlertMeter at Delta Air Lines Onboard Services Presentation





AlertMeter® Plus Lytx® with Delta Business Partners



Working together to reduce Human Factor Risk

AGENDA

- Introduction
- Current Strategies to Address Fatigue in Driving
- Filling the Gap - Introduction to AlertMeter
- Case studies
 - Delta Business Partner Case Studies
 - WMATA – Bus Drivers
- Questions and Answers



Kevin Cho
Enterprise Senior
Client Success Manager
Lytx®



Rachelle Allen
PMOSH, CSP
Regional Manager Onboard Services OBS
Safety and Security
Delta Air Lines

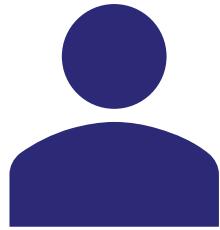


Jeff Sease
COO Predictive Safety

How are we currently addressing Driver Fatigue Risk?



Compliance



Journey Management



Risk Identification and
Intervention via
Camera Systems



**PROTECTING A
WORLD IN MOTION**

Every day, you send your most valuable assets into the world. Your people. Your equipment. Your reputation.

Lytx gives you the tools to manage and protect **all the assets you have in motion** – helping you stay connected with your field operations so you can focus on delivering value and growing your business.

About Lytx®

Lytx gives companies the tools to protect all the assets they have in motion – their people, their equipment, and their reputation. Our products and services help customers stay connected with their field operations so they can focus on delivering value and growing their businesses.

5,500+

fleets worldwide including:
7 of the top 11 for-hire carriers in North America

5.5 MILLION

drivers protected worldwide

311 BILLION+

miles of driving data captured and analyzed

89+ COUNTRIES

across six continents, including North America,
South America, Europe, Africa, Oceania, and Asia

27 YEARS

of video safety and video telematics leadership

1.3 MILLION

subscriptions booked

\$1.8 BILLION

in client savings on claims in 2023

225+ PATENTS

awarded or pending worldwide, 186 in the U.S.



What if we could detect fatigue BEFORE an operator is behind the wheel
and
Go beyond compliance in predicting fatigue?



AlertMeter® + Lytx® Working Together

Lytx detects fatigue and other driving events throughout the trip, providing continuous opportunity for intervention

AlertMeter® DETECTS fatigue before the operator is behind the wheel and PREDICTS fatigue based on LEADING INDICATORS

AlertMeter + Lytx together show the entire picture

AlertMeter® Detection

Fatigue and Impairments that are going to happen beyond your control

AlertMeter® measures the Operator's response compared to their individual baseline and gives a top-level indication of *within normal range*, ("green") or *outside normal range* ("red" or ONR).

Scoring outside of normal range on AlertMeter® is an indicator for potential impairment due to lack of sleep, emotional distress or substance abuse.

AlertMeter® does not identify the cause; **it starts an objective safety conversation based on data.**

DOES NOT RESTRICT HOURS



AlertMeter® Prediction

Predicting Fatigue Risk you can manage i.e. hours, callouts, overtime etc)

The optional AlertMeter® Predictive FRMS (Fatigue Risk Management System) and **biomathematical circadian model** provides a real-time fatigue prediction dashboard with manager insights regarding who on their team is at the most risk from fatigue due to shift pressure, shift rotation, overtime, etc.) in that moment and through the remainder of the shift.

PROVIDES A COMPREHENSIVE view of fatigue risk throughout the workday





Predictive Safety

Predictive Safety SRP, Inc is THE leading developer and global provider of technology to predict fatigue and detect impairment from fatigue and other factors.

"Predictive Safety is deeply committed to facilitating sustainably safe and operationally excellent workplaces using data analytics to identify and manage behaviors and other leading indicators before safety risks can turn into incidents or production issues. Predictive Safety helps employers pinpoint fatigue and alertness behaviors to identify human risk factors in real time that are likely to lead to incidents causing injuries, slow down, product damage or lack of efficiencies. Our systems facilitate actionable solutions to manage risks and protect your most important asset, your people"

Jeff Akers - CEO



Mining



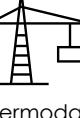
Oil & Gas



Aviation Services



Public Transit



Intermodal



Construction



Manufacturing

Software to drive operational excellence

Safety and Performance



Human Factor KPI's



Management Engagement



Worker Wellness



Technical Innovation



Risk Mitigation

45,000+ Workers Monitored

 AlertMeter®

Patented and Proven

THE ONLY SOFTWARE VALIDATED TO PREDICT FATIGUE AND DETECT IMPAIRMENTS IN 45 SECONDS

 DELTA

Washington
Metro
Transit
authority
 M
metro

 MAINLINE
AVIATION
BY SITAUSA

 bp

GLENCORE

 RTA

 BHP

 SIKORSKY
A LOCKHEED MARTIN COMPANY

 ANGLO
AMERICAN

 ADNOC

 WAYMO

 Google

 ferrovial

 transdev

 TRIPLE-S
STEEL

 STEEL AND
PIPE SUPPLY

 SAVAGE

 Peabody
ENERGY

 national
express
transit

 WeDriveU

 BUENAVENTURA

 PAMA

 Hydro

 Sky Cafe

 PRIMAX
gas

 unifi

 SAINT-GOBAIN

 newrest

 TATA
STEEL

 AmeriGas

 ConGlobal

Scientific Validations and Supported Fatigue and IT Standards

 NIOSH
National Institute for
Occupational Safety and Health

 TRB
TRANSPORTATION RESEARCH BOARD

 NSC

 PHMSA
Pipeline and Hazardous Materials
Safety Administration

 FMCSA
Federal Motor Carrier Safety Administration

 OSHA®
Occupational Safety
and Health Administration

 HSE
Health & Safety
Executive

 IPIECA

 IGP
International
Association
of Oil & Gas
Producers

 mineral resources
& energy
Department:
Mineral Resources and Energy
REPUBLIC OF SOUTH AFRICA

 API
AMERICAN
PETROLEUM
INSTITUTE

 safe work
australia

 ISO 27001

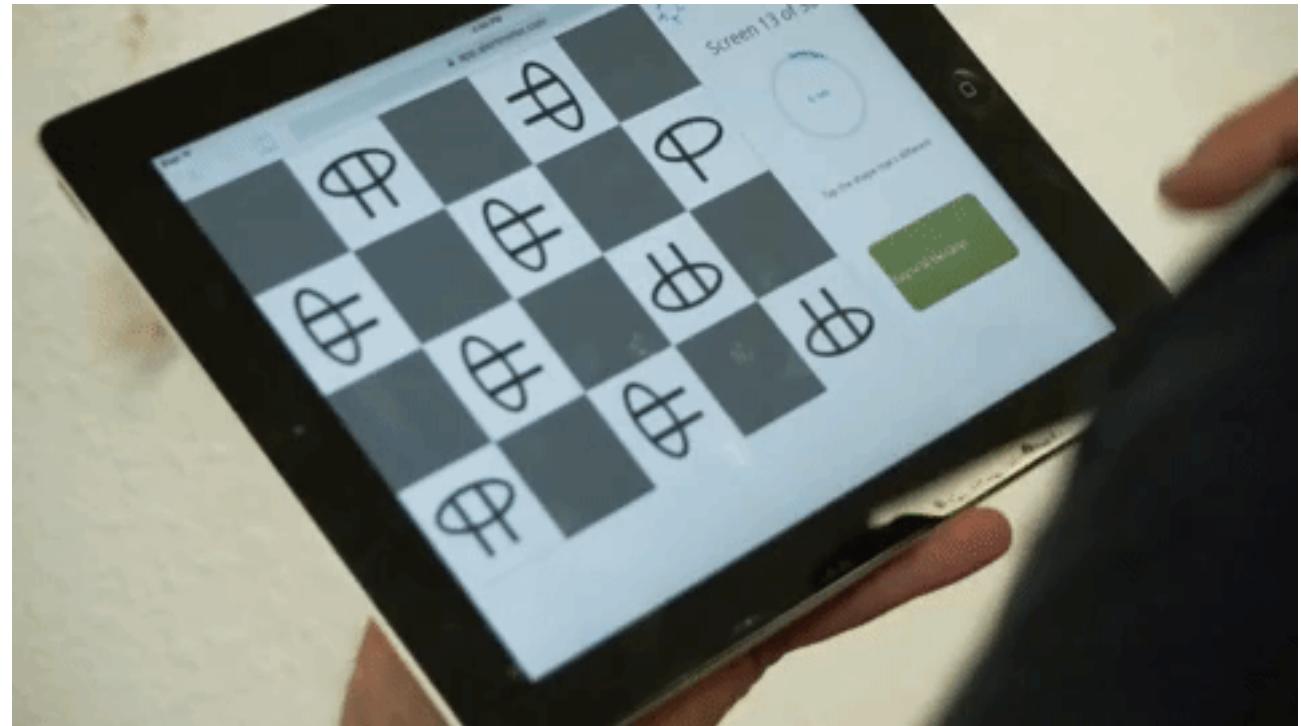
 GDPR

Executing the Assessment

21 screens, You have 4-6 seconds to respond to each
AVERAGE TIME AFTER LEARNING = 45 SECONDS

Tap the shape that is
different

If they are all the same,
tap the **GREEN BUTTON**

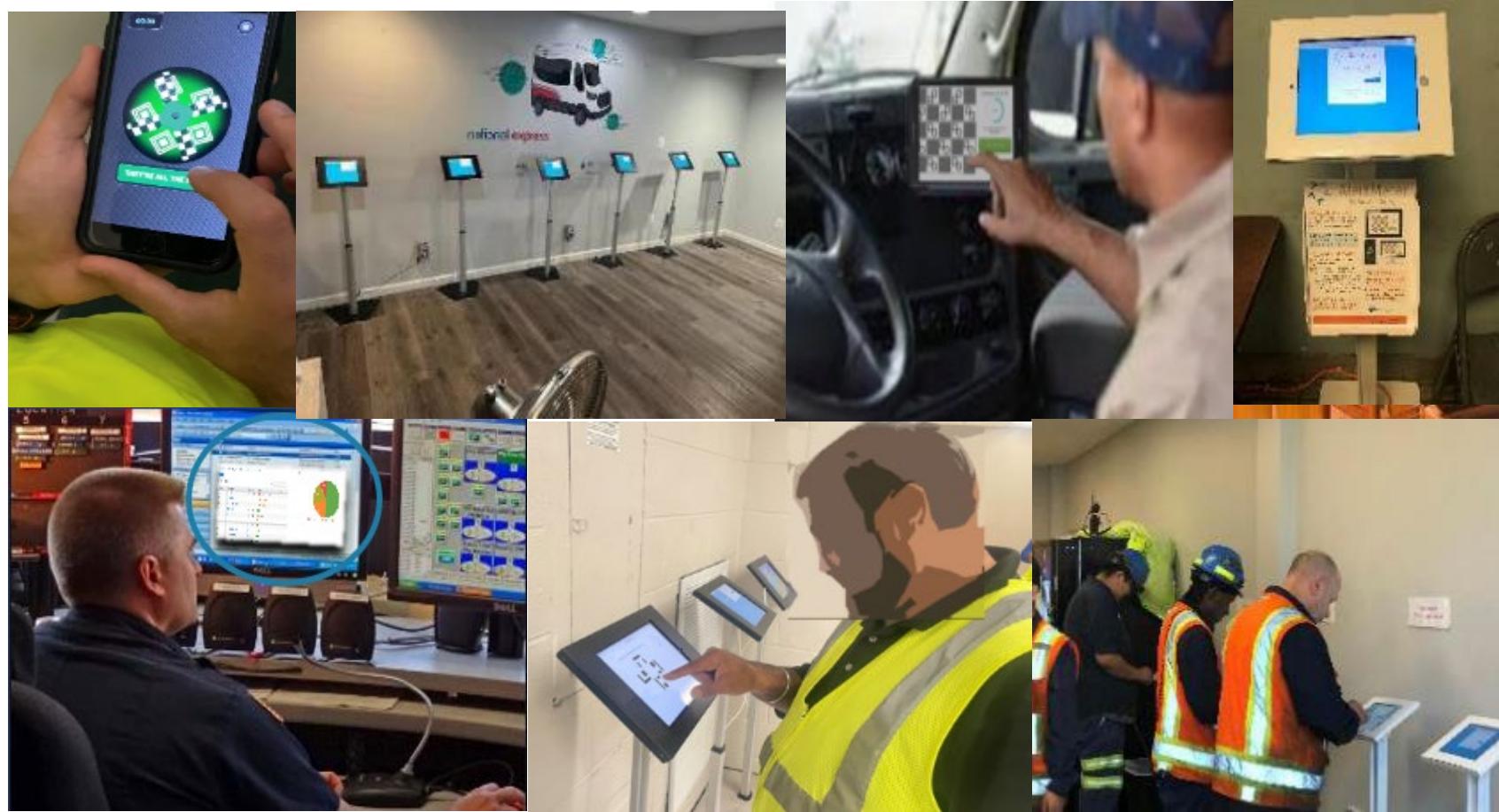


Actions measured for speed and accuracy by millisecond and compared to personal baseline

AlertMeter® - Setup and Science

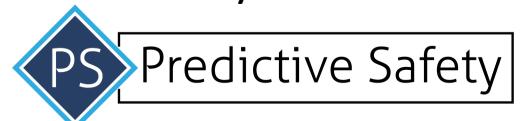


Device Agnostic,
SaaS Based
45 Seconds
Non-Discriminatory
Language Agnostic
Scientifically Validated
Patented



Proprietary and Confidential

Top Level Screen that Starts a Conversation
Confidence that your team is arriving to work rested, alert and ready for work



www.predictivesafety.com

Day In the Life with AlertMeter®

1

Clock in as normal
Use Badge ID to
Login to AlertMeter

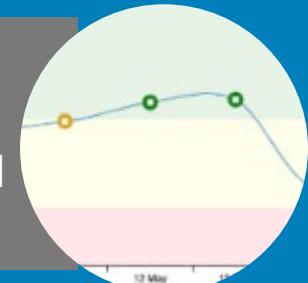


Execute 45
second game



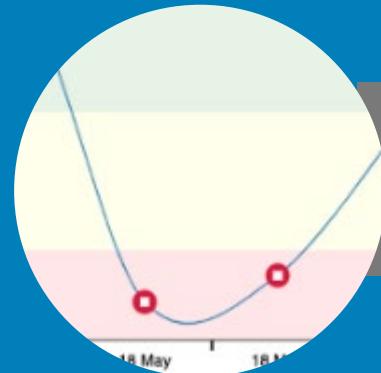
2

- Alertness level is compared to personal baseline.
- 97% of results are OK to proceed (Green Score)



4

Failure to Score Green in two tries
= See a manager. Notifications are
also sent



3

In cases of severe deviation from baseline,
employees fail to score green after two tries
(Outside Normal Range) ~3% of all games

Peri Eryigit scored below their
baseline on November 24 at
11:26 AM.

5

Manager provides coaching, Relies on company policy to determine disposition

- Fitness for Duty
- Reasonable Suspicion
- If no violation of policy is found, operator may be assigned to non safety sensitive duty or simply monitored throughout the day



AlertMeter “Game” Science



- Invented as a response to Exxon Valdez
- Original science modeled after NASA PVT
- Funded by NIOSH
- 14 Patents
- Field Tested in South African Mining Environment

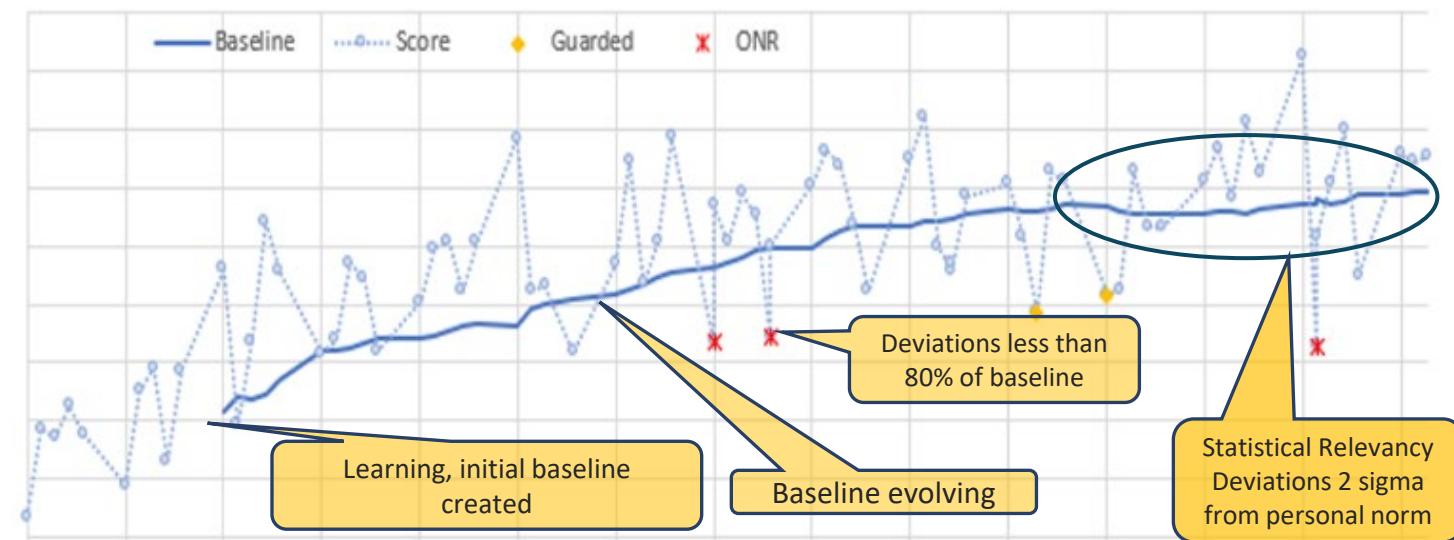
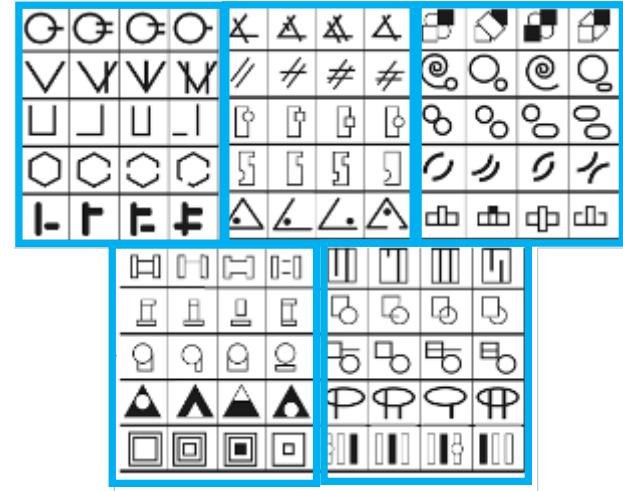
NIOSH Grant Requirements

- ✓ Language independent
- ✓ Non-Discriminatory,
- ✓ No Personal Information

Baseline unique to each person

Baseline evolves with user proficiency

- **Entirety of shapes in AlertMeter**
- **Proclivity to shape families provides higher statistical relevancy**



Baseline Example:

- Each point represents a test,
- Dark blue line=baseline. 10 Scores over 4 Days for rudimentary baseline
- Red dots = scores outside of acceptable limits. (2 standard deviations)

Washington Metro Transit Authority Controlled Case Study



2 YEAR STUDY – WASHINGTON DC METRO BUS 2023, 2024

- Total number of unique individuals tested: 2,015
- Participation Rate 99.65%
- Total Driver Pullouts – One Test For Each: 416,540
- Total Evaluations performed 5,202 (1.3% of all tests taken)
- Total Evaluations resulting in a driver being restricted from driving on that day: 1,099 (out of 416,540) (21% of 1.3%)

Significant Reduction in the following areas

Drive Cam Trigger Reductions

Cornering triggers

Rough,/uneven surface triggers

Other triggers

Telematics Reports Reductions

Incident Frequency Rate

Preventable Incident Rate

NTD Major Event Rate

Customer Injury Rate

Employee Injury Rate

There has been no negative impact on-time performance.

Documented Results during the Study

- “The operator was not focused, during self-evaluation the operator **mentioned the loss of her mother**, which is a possible reason for the ONR. The operator has not ONR in long time. In conclusion the operator is not authorized for service”.
- “During the interview with the operator, the operator self-admitted that he had **been ill and was taking medication for the illness** and although he felt better, he was not quite 100%. The operator was not fit for normal duty”
- “The possible cause of the ONR could have been due to outside stressors. The operator normally scores ok. Today he expressed that he was not feeling his best after **recovering from an episode of gout**. I advised him to go home and get some rest so can be 100% and alert for his next shift”
- “The operator showed signs of fatigue while being interviewed by management. **The operator had delayed responses, bloodshot eyes, yawning, and consistently rubbing his face**. The operator was evaluated and referred to HR for further evaluation”
- “The operator appeared fatigued while engaged in conversation with management. I observed the operator staring in one direction, **slow reaction, and unable to answer questions**. **He expressed that he has been working overtime because of outstanding bills**. I informed the operator about the importance of getting rest. The operator was evaluated and put on restricted duty”

Device Setup at WMATA



Weekly AlertMeter® Summary



4/13/2025 10:01:46 PM GMT

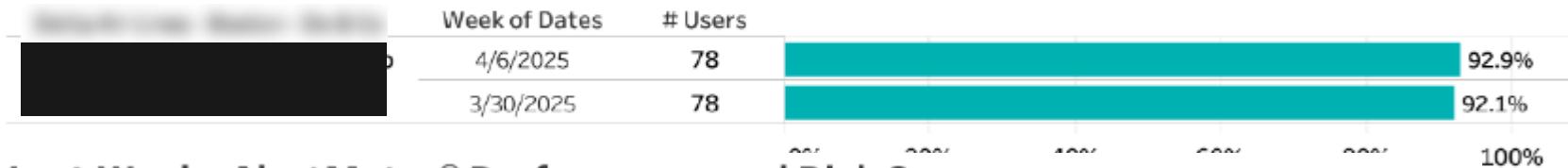
Last Two Weeks Score Card

Week of Dates	% Participation	Participation Goal	% Alertness Risks	Alertness Risk Goal	% Preventative Care	Preventative Care Goal	% Alertness Leader	Alertness Leaders Goal
4/6/25	92.91%	Goal 100%	3.8%	Goal 2%	16.4%	Goal 8%	78.6%	Goal 90%
3/30/25	92.12%	Goal 100%	3.5%	Goal 2%	18.7%	Goal 8%	76.3%	Goal 90%

PREDICTIVE SAFETY, SRP 951 20th Street Unit #13467 - Denver, Colorado 80201 [720-383-4963](tel:720-383-4963) - www.predictivesafety.com

HUMAN FACTOR KPI's & Reporting

Last Two Weeks AlertMeter® Participation



Last Weeks AlertMeter® Performance and Risk Summary

% Alertness Risk Goal - Scored Outside Normal Range Goal < 2%

% Aborts - Aborted Game

% Preventative Care - Scored Single ONR, Guarded or Incomplete < 8%

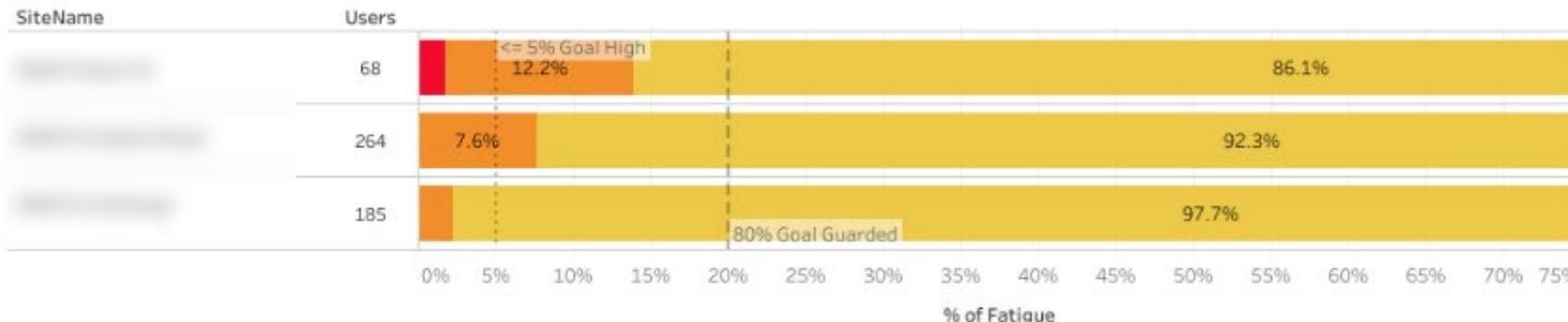
% Leaderboard - Scored only OK for the day Target > 90%



Daily, Weekly or Monthly Analysis of % of Hours worked in Fatigue Status Levels by Group or Operator

Fatigue by Site - Last 24 hours and Predicted

Severe Fatigue (Management Notified) Goal 0% of hours worked
High Fatigue (Management Notified) Target <5% of hours worked
Medium Fatigue (Operator Awareness) Target <15% of hours worked
Normal/Guarded Status Target 80% or Greater



Fatigue by Site - Last 24 hours and Predicted

Severe Fatigue (Management Notified) Goal 0% of hours worked
High Fatigue (Management Notified) Target <5% of hours worked
Medium Fatigue (Operator Awareness) Target <15% of hours worked
Normal/Guarded Status Target 80% or Greater





2 Year Case Study: Incident Reductions with Business Partner Ramp Operations

Metrics Used in the Case Study Analysis

ARI / GSE Incident Metrics

- Count and rate of Aircraft Related Incidents (ARI)
- Count and rate of Ground Support Equipment (GSE) incidents
- Before vs. after AlertMeter® implementation

Lytx® Event Metrics

- Count and rate of Driver Condition and other alertness-related events
- Before vs. after AlertMeter® implementation comparison
- Comparisons between early adoption months and later, more mature usage periods
- Event trends aligned to each site's go-live timeline

Delta Air Lines – 2 Year Case Study: Incident Reductions with Onboard Services Ramp Operators

1800 Operators, Two Years, Before and After



Significant reductions in the following areas

- Reduced aircraft related incidents attributable to contractor driver inattention
- Reduction in overall ground support incidents
- Before vs. after AlertMeter® implementation showed double digit reductions in Lytx® camera events

(For more detail, please contact Predictive Safety)

Two Year Case Study Impact of AlertMeter on Lytx® Triggers

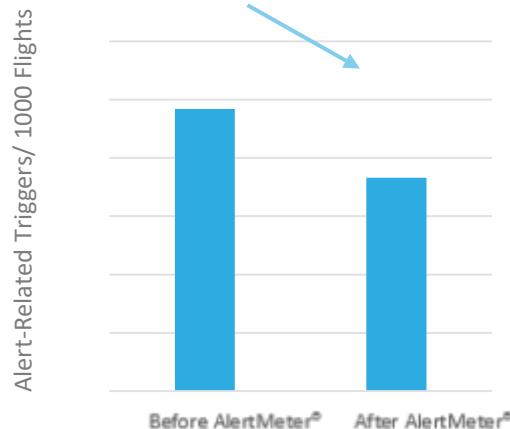
1800 Operators*, Two Years, Before and After



Site 1

Category-Level Improvements
Major Reductions
<ul style="list-style-type: none">SpeedingFollowing Distance
Moderate Improvements
<ul style="list-style-type: none">Traffic ViolationsDriver Behavior
Consistent Progress
<ul style="list-style-type: none">Driver Condition

Impact of AlertMeter® on Alertness-Related Triggers



25% Reduction

Sites 2, 3, 4, and 5

Category-Level Improvements

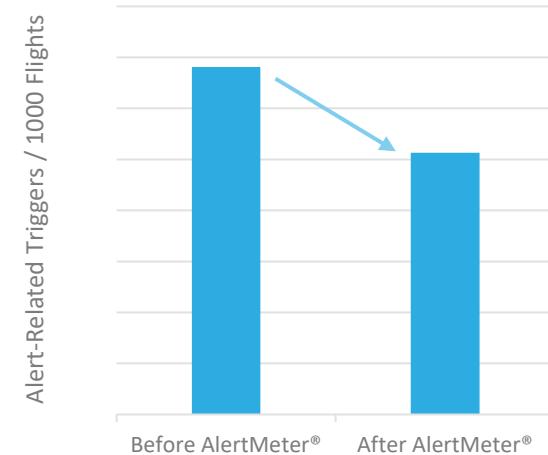
Strong Early Impact

- Driver Condition
- Traffic Violations

Developing Improvements

- Speeding
- Following Distance

Impact of AlertMeter® on Alertness-Related Triggers



25% Reduction

* Drivers are contract employees of various business partners

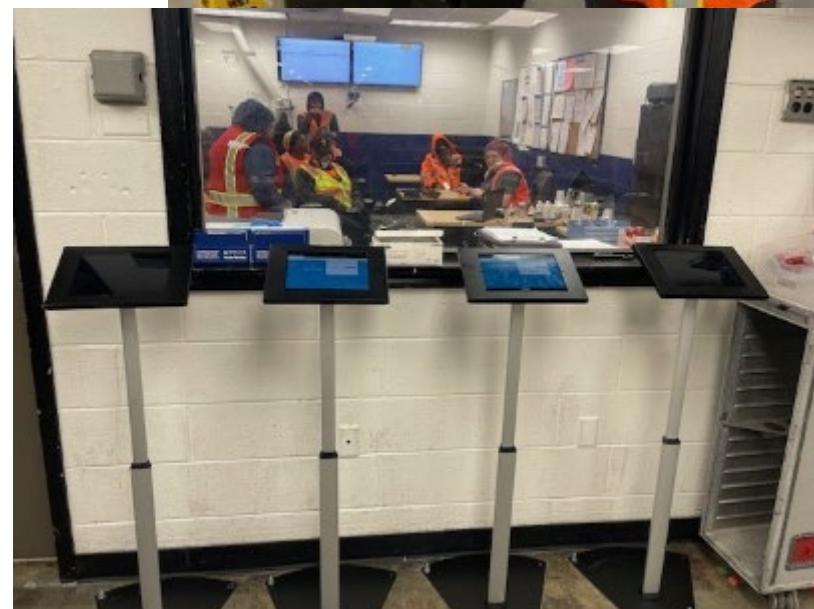
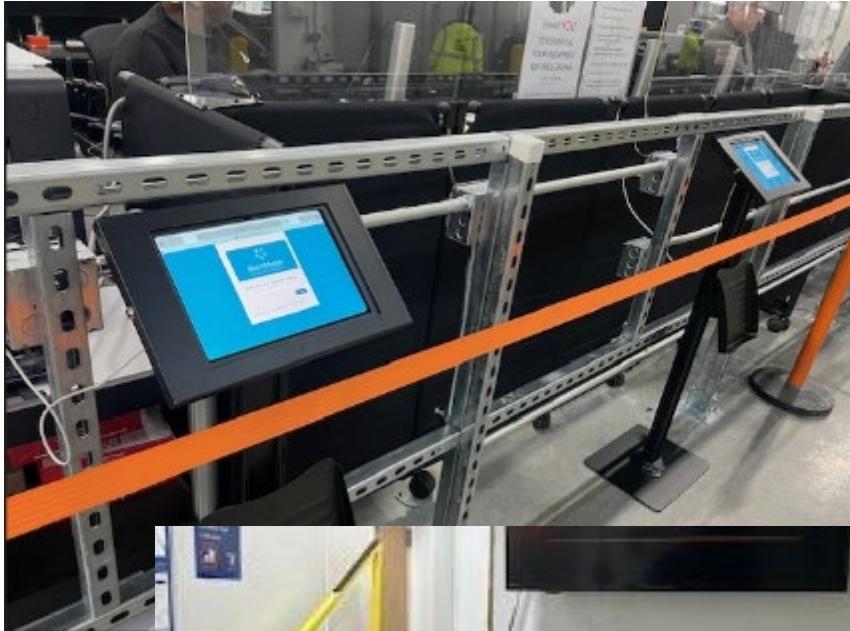
Lytx® Trigger Metrics

Triggers	Site 1	2024/2025 Sites
Speeding	84%	2%*
Traffic Violation	33%	32%
Driver Condition	10%	41%
Following Distance	57%	2%
Driver Behavior	22%	-28%
All Risk Behaviors	25%	25%
All Compliance Behaviors	27%	51%

*These sites are off airport property where the road speed limit is above the built in speed limit settings in Lytx®.

- New 2024/2025 sites show the same early improvement pattern as Site 1 demonstrated in its first year.
- Sites using both Lytx® and AlertMeter® achieve faster reductions in risky driving behaviors.
- **25% reduction** in overall risk behaviors aligns with improvements seen at mature sites.

Device Setup Examples at Delta Partner Sites



Contact us!!



Jeffrey Sease

COO

Predictive Safety

predictivesafety.com

Jeff.sease@predictivesafety.com

+1-303-902-9511

Additional Questions?



Email additional questions to
Rodolfo.Giacoman@CVSA.org

Recording will be available at
nafmp.org/webinars

Please complete anonymous survey on this
webinar at the end of the Zoom session

Thank you!



CVSA®