PULSAR™

Fatigue Management Made Easy

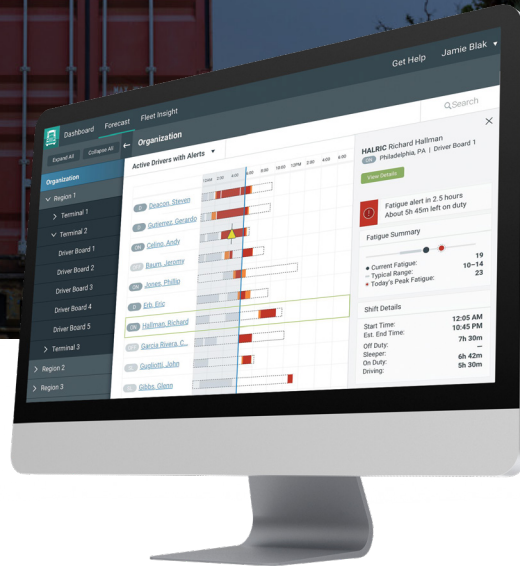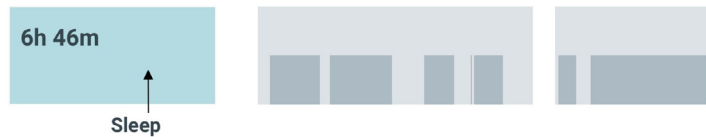## TRUCKING FATIGUE METER™

How Fatigue Meter works

1 Receive HOS Data

Integrated with your scheduling system, Fatigue Meter imports your driver's schedule data every 15 minutes.

MONDAY
12 AM — 6 AM — 12 PM — 6 PM

On Duty   Driving

2 Estimate Sleep

The timing and duration of each driver's sleep periods is estimated based on when they are most likely to sleep.

6h 46m

Sleep

3 Predict Fatigue

As soon as a driver begins their shift, Fatigue Meter will forecast their fatigue for the next 14 hours.

The timeline will turn orange when the driver is close to triggering an alert and red when fatigue is higher than normal.

6h 46m

No Alert

Fatigue Watch Warning   Fatigue Watch
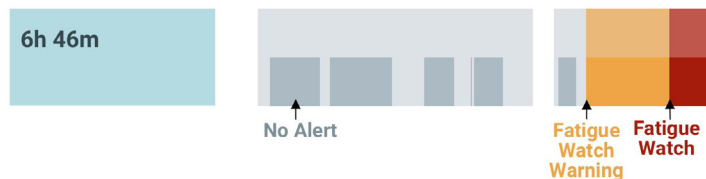
HOS compliance alone isn't enough to manage fatigue

The HOS rules set by FMCSA limit driving hours, but certain factors that can contribute to fatigue risk are not captured by the regulations. These factors include:

Sleep Debt

We all need about 7-9 hours of sleep to recharge our sleep battery every day. When we go day after day without getting enough sleep we accumulate a sleep debt.

Long Days

When we sleep we recharge our sleep batteries, which provide reliable alertness for about 16 hours. The longer we are awake, the more our body craves sleep.

Time of Day

When we are awake and on duty at night we experience more fatigue because we are a daytime species, sleepy at night by nature.

How to identify fatigue risk and coaching drivers

1 MONITOR for upcoming alerts

✓ **Check Forecast**
See if any of your driver's timelines turn red during their shift

✓ **Have a safety check-in**
Find out when the driver is planning to finish work, and ask them to keep you informed of any changes

✓ **Discuss a plan**
- Plan an HOS break close to the start of the fatigue alert
- Take a 20-30 minute power nap
- Consider shutting down early to get some rest

2 RESPOND to Fatigue Watch alerts

✓ **Receive email notification**
The moment a driver triggers an alert, you will receive an email that contains coaching tips

✓ **Have a safety check-in**
Ask how they are feeling and work out a plan for the remainder of the shift

✓ **Take action if needed**
- Have a coffee (or other forms of caffeine)
- Take a break (get out of the truck and walk around)
- Take a 20-30 minute power nap
- Shut down early if necessary
- Ensure good recovery sleep

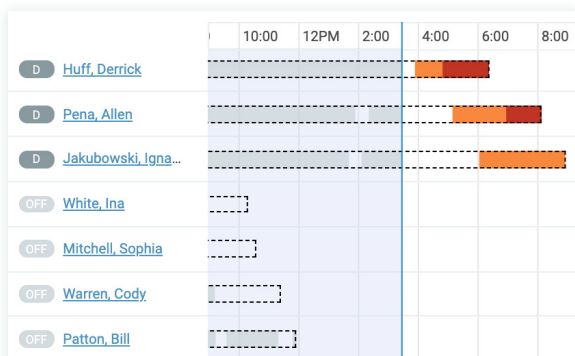## 3 COACH drivers to mitigate fatigue risk

✓ **Watch for patterns**
Get to know your driver's fatigue patterns and understand the root cause of the alerts

✓ **Review drivers' schedules**
Identify if there are any ways that a driver's schedule or dispatching could be adjusted to reduce fatigue factors

✓ **Have an open door policy**
It's common for drivers to put off speaking to their manager about fatigue as they are worried about losing their job. It's important to reassure drivers that communication is important, for everyone's safety

	10:00	12PM	2:00	4:00	6:00	8:00
D Huff, Derrick						
D Pena, Allen						
D Jakubowski, Igna...						
OFF White, Ina						
OFF Mitchell, Sophia						
OFF Warren, Cody						
OFF Patton, Bill						

Fatigue Watch

BAUJER, Jeromy Baum
Philadelphia Depot

View Driver Profile

FACTORS
Driver's recent work patterns that may be contributing to fatigue:

Longer Duty
Working longer than normal can leave you fatigued, particularly towards the end of your shift. It's also common to stay up later than you normally would, which can impact your next day.
Try to go to bed within an hour of your normal bedtime, especially if you're planning to wake up at your normal time.

Earlier start
Early starts often result in an earlier wake time and less sleep. The grogginess you might experience when you first wake can also last longer when waking up earlier than normal.

Get Help

Welcome to the Fatigue Meter help center.
Choose a category to find the help you need.

Documentation
Explore the user guide if you need help or want to find out more about a particular feature.

Training for Managers
Learn how to respond to fatigue alerts, evaluate SCEs, improve driver coaching, and track safety metrics.

Fatigue Education Video
We have created an educational video s... and your drivers learn about fatigue ris...

FAQ

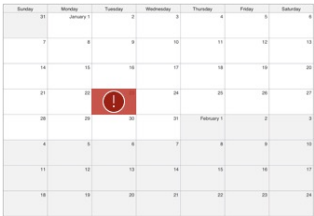**More resources are available on the Help Center**

What does it mean to have a Fatigue Watch alert?

When a Fatigue Watch alert is triggered for a driver, it means that they have an elevated level of fatigue compared to what is typical for them.
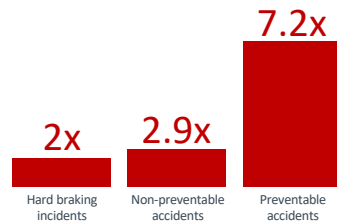
Elevated Fatigue

Moderate Fatigue

Typcial Fatigue

Fatigue Watch
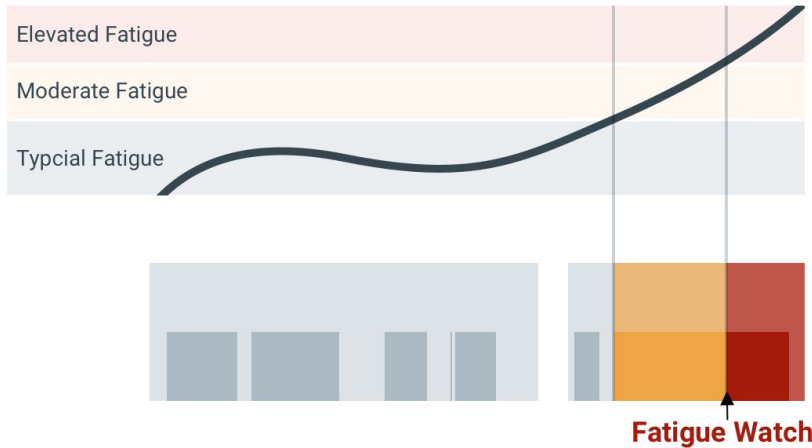
Frequency

Each driver averages
ONE ALERT
every 6 to 8 weeks

Increased risk

Case studies show
2x to 7x
in incidents on days with alerts

7.2x

2x
Hard braking incidents

2.9x
Non-preventable accidents

Preventable accidents

CASE STUDY

Fleet managers at the J. B. Hunt Intermodal terminal in Harrisburg are using Fatigue Meter to reduce accidents and incidents with significant year-over-year improvements. About 300 drivers are enrolled in active monitoring and coaching. In the first year accident costs per driver were reduced by 30%, and in the second year accident costs were down 70% ($1,938 per driver reduction). The total annual savings for accident related costs currently exceeds $500k.

Annual average accident cost per driver

$3000

$2752

-30.2%
(-$832)

-70.4%
(-$1938)

$2000

$1920

$1000

$814

$0

Year 0
Baseline

Year 1

Year 2

J.B. HUNT
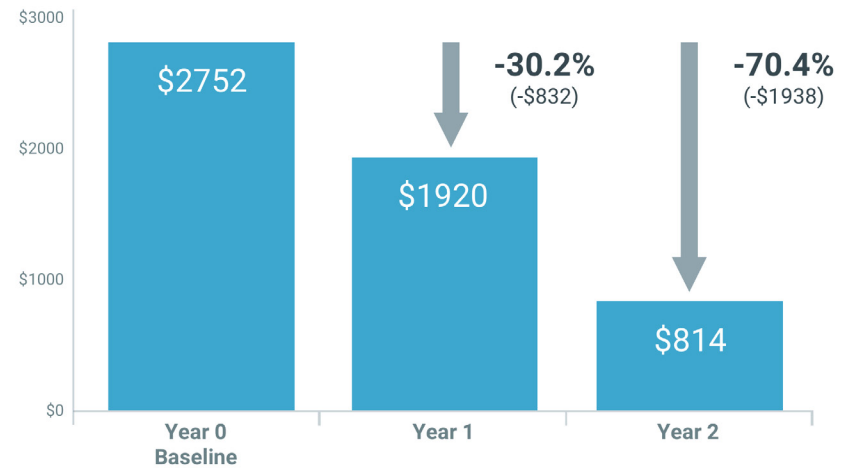
"By seeing my driver's sleep and fatigue patterns in Fatigue Meter, I'm able to understand why they are fatigued and that helps me coach them in a much more personal way."

– Tedd Pounds, Area Risk Manager, NE Intermodal

Contact us today if you have questions about Fatigue Meter or would like to schedule a live demo.

info@pulsarinformatics.com
215.220.4250

pulsarinformatics.com

Fatigue Meter in 5 Steps

Thank you for your interest in a driver fatigue management program and your dedication to improving safety within your operation. The implementation steps outlined below will help you get up and running quickly.

1 · 1-2 WEEKS · ENROLLMENT

Pulsar hosts a kick-off meeting to introduce the program and answer any questions you may have. Next, we'll work with your legal team to review and sign a Service Level Agreement.

2 · 1-2 WEEKS · SET-UP

Pulsar's technical team creates your company's Fatigue Meter account and works with your IT department to connect your ELD and start collecting data.

3 · 2 WEEKS · ORIENTATION

Pulsar's data science team analyzes data over a recent historical period and prepares a Fatigue Snapshot: a baseline report of fatigue risk across your entire fleet. We debrief your safety managers, fleet managers, and leadership on the key findings from the Fatigue Snapshot and explain how our program will promote safety and reduce costs.

4 · 2-4 WEEKS · ADOPTION

We set up Fatigue Watch alerts and begin sending them to a few of your driver managers so they can start to become familiar with the alerting system. After a brief trial period, we host a meeting to review alerts generated to date and receive your input to refine the alerting and reporting process.

5 · ONGOING · SUPPORT

Our support team can be contacted right within Fatigue Meter for technical support issues. We also host periodic meetings (e.g., quarterly) with your safety managers to discuss reports and answer any questions you may have about the program.

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