

INTRODUCING THE NEXT GENERATION IN WEARABLE DROWSINESS DETECTION TECHNOLOGY

OPTALERT[®]

DROWSY DRIVERS IMPACT YOUR BOTTOM LINE

Across the globe, fatigue management is essential for safe, high-performing 24-hour operations. Fatigue, tiredness, sleepiness and drowsiness are interchangeable terms which all point to a serious problem in the workplace – high risk of injury, lost productivity and impact on the bottom line.

Optalert addresses this risk through patented wearable technology products. We believe in zero harm, and our aim is to drive a multi-layered approach to mitigating fatigue-related risk in the workplace.



OPTALERT EARLY WARNING DROWSINESS DETECTION IS BEING USED BY LEADING COMPANIES RIGHT AROUND THE GLOBE



ALERTNESS CRC. ALSCO AUSGRID BASIN SANDS LOGISTICS BHP BROADCAST AUSTRALIA INDUSTRIAS PEÑOLES LIHIR GOLD LIMITED VALE WAFI-GOLPU JOINT VENTURE 407 ETR

EARLY-WARNING DROWSINESS DETECTION



The Eagle Industrial system accurately measures the operator's level of alertness in real time to reduce the risk of an operator moving to the dangerous state of drowsiness.

MULTI-LAYERED APPROACH TO MANAGING DROWSINESS



The Eagle Industrial screen has large, easy to read numbers so operators see at a glance their own fluctuating drowsiness level displayed as a score from 0 to 10 using the Johns Drowsiness Score (JDS[™]). Higher JDS[™] readings equate to higher levels of drowsiness for the operator. Auditory alarms indicate when the score is reaching higher risk levels. On average, operators check to see their level of alertness once every 20-25 minutes. This activity itself creates a safer and more aware operator. The operator can also see a history of risk warnings during their shift to help them self-manage their risk.



) Monitoring staff access the real-time drowsiness the real-time drowsiness levels of their entire fleet, anywhere in the world, via the Optalert Individual Risk Indicator System (IRIS[™]). Displayed in a web-browser, the IRIS[™] shows the risk level for individual employees and allows **managers** to keep a top level view of their fleet, or drill down to assess more in-depth patterns. Furthermore, nominated supervisors or staff have the customised option of receiving an SMS and/or email alert whenever a driver at their site receives 'High Risk' warnings.

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The valuable data collected by Eagle Industrial the system can be used for a variety of risk mitigation initiatives. Over time, Optalert's Fatigue Risk Profile capabilities allow analysis and assessment of this data to enable customers to adjust shift and task rostering through determining the most 'at risk' times of the day.

"BY THE TIME YOU ARE FEELING DROWSY, YOU MAY ALREADY HAVE HAD A MICRO SLEEP, WHICH PUTS YOU AT SIGNIFICANT RISK OF HURTING YOURSELF OR OTHERS."

SCIENTIFICALLY PROVEN TECHNOLOGY

The incorporates the only scientificallyvalidated technology that continuously and unobtrusively measures alertness in drivers and operators. It has been developed through more than 20 years of research into the physiology of drowsiness. Researchers from some of the most prestigious facilities in the world have validated the technoloay. Professor Czeisler of Harvard Medical School was part of a cross-institutional 2013 study concluding the Optalert fatigue detection product as setting the 'gold standard' in early fatigue detection - a key component of workplace safety. This goes beyond recognising Optalert's products are world class, it asserts our products set the benchmark for early drowsiness detection and risk reduction.

"OPTALERT TECHNOLOGY IS THE BEST DROWSINESS DETECTION TOOL I HAVE EVER SEEN"

TORO HAVINI – BIS INDUSTRIES DIVISIONAL RISK & OHSE MANAGER.

IMPROVED DRIVER PERFORMANCE

The Australian Defence Test and Evaluation Office (ADTEO), in conjunction with the Defence Science and Technology Organisation (DSTO), assessed drowsiness levels in military personnel and evaluated the effectiveness of Optalert's early warning drowsiness technology as a suitable tool for risk management strategies.

The Report on *Defence Trial Number 896 demonstrated Optalert's systems contributed to a reduction in drowsiness and improvement in driver performance. Recommendations were made to continue to employ Optalert's products in a stand-alone role and to investigate the potential use within other military contexts including tri-service driving and watch roles.

*Defence Trial Number 896: ADF Fatigue Management – Optalert. Department of Defence, Capability Development Group. Australian Defence Test & Evaluation Office, 2012.



The glasses work by measuring the velocity of the operator's eyelid 500 times a second using a tiny LED built into the frame. They are lightweight, provide good UV protection and are custom fitted with 3 different coloured polycarbonate lenses designed for different driving conditions and can be refit with prescription lenses



• Light weight and compact but tough hardware platform is resistant to vibration, moisture and dust/debris



• Large touchscreen with modern interface displays risk level in real time and provides a history of risk warnings to keep the operator informed of their recent drowsiness levels

• Wireless transmission of data and system status via on-board 3G/Wifi modem

- Anti-glare Gorilla Glass screen
- Short installation time with minimal impact

on the vehicle fleet

- Minimal servicing time required
- Robust and reliable operation in high-stress

environments

(MIL-STD-810G, IP65)

• Compatible with Optalert's current and next

generation glasses technology.

ACCIDENTS HAPPEN IN THE BLINK OF AN EYE, BUT NOT IF YOU SEE THEM COMING

"FATIGUE HAS BEEN PROVEN TO CAUSE MORE ACCIDENTS THAN ALCOHOL"

MINING AUSTRALIA, MAY 2013.



©Copyright Optalert 2014. Johns Drowsiness Scale (JDS) is recognised worldwide and was developed by Sleep Medicine Expert Dr Murray Johns.

The above graph shows the equivalent risk drowsiness can have compared to Blood Alcohol Concentration. You wouldn't let your drivers drive if they'd consumed alcohol, so why would you let them drive drowsy? Drowsiness is a preventable problem. Contact us to find out how we can help reduce your risk of an accident and costly injuries.

FURTHER INFORMATION

For more information about Optalert and the Eagle Industrial range, please go to optalert.com or contact us via sales@optalert.com



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