



CIRCADIAN® and Kronos® Offer Fatigue Management Tool to Airlines

STONEHAM, Mass., CHELMSFORD, Mass., and MONTREAL, October 27, 2010 — [CIRCADIAN®](#) and [Kronos® Incorporated](#) today announced that CIRCADIAN®, the world's leading provider of fatigue risk management systems (FRMS) has partnered with the Kronos AD OPT division to offer a state-of-the-art fatigue and alertness module fully integrated with AD OPT's market-leading airline crew planning, management, and optimization solutions.

News Facts:

- The airline industry is undergoing a fundamental shift in the way it applies work limits and rest requirements. Up until now, those were defined using prescriptive rules based on the industry's Flight Time Limitations (FTL), which are requirements that determine the maximum permissible duty periods, flight duty periods, and minimum rest periods for crew members. Currently, the industry is moving towards FRMS-based regulations, which prevent fatigue risks by using physiological models rather than defining hard limits on work and rest.
- The governing agencies that establish prescriptive rules for airlines are now allowing FTL exemptions based on fatigue risk management systems. Agencies that have already permitted this type of exemption include the Australia Civil Aviation Authority (CASA), the European Aviation Safety Agency (EASA), and the New Zealand Civil Aviation Authority (NZ-CAA).
- The need for FRMS also accelerated in the U.S. with President Obama signing the H.R. 5900, the Airline Safety and Federal Aviation Administration (FAA) Extension Act into law on August 1st, 2010. This mandates all commercial air carriers to develop a FAA-acceptable Fatigue Risk Management Plan by October 31st, 2010.
- CIRCADIAN's Alertness Simulator (CAS) will conduct root cause analysis and investigation of fatigue - also in real-time - and the end-user will be able to view the data displayed on the Kronos application without having to switch systems. This will enable crew planners to determine acceptable levels of the crew's fatigue in real-time and develop schedules that will further enhance the safety of passengers.
- Kronos creates automated, optimized schedules for cabin and cockpit crewmembers, taking into consideration the organization's operational objectives. A seamless integration with CIRCADIAN's scientifically validated alertness simulator tool will enable Kronos to send the schedules to CIRCADIAN for fatigue risk evaluation in real-time.

Supporting Quotes

- *Dr Martin Moore-Ede, CEO of CIRCADIAN®*
"The essential features of a FRMS are that it must be a scientifically-based, data-driven continuously-improving system. By teaming with Kronos AD OPT, we can provide airlines with a world-class FRMS solution: one that is seamlessly integrated with Kronos' crew scheduling software and that meets the new regulatory requirements."

- *Thomas Ivaskiv, Vice President and General Manager, AD OPT division of Kronos*
"We are pleased to integrate our crew management software with CIRCADIAN's FRMS system. Kronos AD OPT has valued its relationship with CIRCADIAN for many years and we appreciate the complementary application to address the growing FRMS needs of our clients."

About CIRCADIAN®

CIRCADIAN® is the pioneer and leading research, consulting and technology firm in the field of shiftwork, crew scheduling and fatigue risk management systems. Supported by over 25 years of research and field application experience, CIRCADIAN has become the only full service provider of 24/7 fatigue risk management products and services. Working from offices in North America, Europe, Australia, and Asia, CIRCADIAN experts ensure that over half the Fortune 500, and other leading international companies, improve their safety and competitiveness in the global 24/7 economy. To learn more about Circadian, visit www.circadian.com.

About Kronos Incorporated

Kronos is the global leader in workforce management solutions that enable organizations to control labor costs, minimize compliance risk, and improve workforce productivity. Tens of thousands of organizations in 60 countries — including more than half of the Fortune 1000® — use Kronos time and attendance, scheduling, absence management, HR and payroll, hiring, and labor analytics applications. To learn how Kronos uniquely delivers complete automation and high-quality information in an easy-to-use solution, visit www.kronos.com.

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