

Jeppesen CrewAlert for iOS

A versatile tool for crew members and safety departments.

Jeppesen CrewAlert is designed to be a central part of any airline's FRMS. CrewAlert plays a vital role in delivering predictive, pro-active and reactive capabilities aligned with ICAO guidance.



Predictive capability.

CrewAlert contains the Boeing Alertness Model (BAM) – a leading mathematical model for predicting alertness and sleep/wake for a population of crew members as a function of duty pattern, personal settings and prior sleep/wake.

Rosters can be loaded automatically or entered manually with ease. CrewAlert will flag relative fatigue risk by coloring active flights green, amber, or red. Customizing the alarm limits enables crew to easily spot upcoming duties predicted to be especially tough, and thereby prepare accordingly using their sleep opportunities better.

For a crew scheduling department, lacking other powerful predictive capabilities, CrewAlert can also serve the purpose of comparing scheduling alternatives with the built-in scenario functionality.

CrewAlert has many customization possibilities simplifying input but also enhancing prediction precision through for example adjusting morning/evening type, habitual sleep length and commute times.

Proactive capability – data collection



CrewAlert can be used to proactively survey a route, a fleet or the entire operation. CrewAlert allows for efficient data collection and has built-in assessment scales for the Karolinska Sleepiness Scale, the Samn Perelli fatigue scale and

also a built-in reaction time test called NPI.

Learn more about what we offer.

For more information about Jeppesen Fatigue Risk Management, visit jeppesen.com/FRM.

Data is uploaded via Jeppesen. Data collection and consolidation/reporting is free of charge for operators sharing their de-identified data with Jeppesen for advancing science.

Proactive capability – fatigue mitigation

Fatigue mitigation strategies are taught in training for crew but application in the actual roster is often difficult. CrewAlert contains, from release 2.0 onwards, functionality for displaying possible mitigation strategies tailored to personal settings and prior sleep/wake and duty history.



Reactive capability – fatigue reporting

CrewAlert can be utilized by the safety department for analysis of fatigue reports. Using the scenario functionality, reports can be named and saved for later access.



CrewAlert makes it very easy for crew to submit fatigue reports that provides maximum detail to the safety department. The report can be emailed straight into a SMS solution (like Q-Pulse) and contains the event pre-modeled in BAM as a JPG image, making analysis easier.

Availability

CrewAlert is available in two versions: CrewAlert Pro and CrewAlert Lite. The Lite version is available world-wide on the iTunes Appstore free of charge. The full version, CrewAlert Pro, is available in most major markets and costs an equivalent to USD 30. Note that CrewAlert Lite does not contain fatigue mitigation, scenarios, roster load, or fatigue reporting capabilities.

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Jeppesen CrewAlert iOS

Frequently Asked Questions.

Can I use CrewAlert as a go/no-go decision tool in flight operation?

No. CrewAlert aims to relay the latest findings from sleep and performance science, but it is important to note that predictions are made for a population of crew rather than one single individual. The alarm limits given in CrewAlert are provided for example only.

So what should the tool be used for then?

CrewAlert is made for crew, safety pilots and crew scheduling departments who would like to increase their knowledge in how current sleep and performance science “plays out” on a crew roster with certain sleep patterns and characteristics set for the individual. The ambition is that the knowledge transferred will assist in creating better rules protecting from fatigue. CrewAlert can also be used for fatigue reporting and fatigue data collection – enabling efficient collection in a well-defined structure for schedule, sleep and performance data.

Why is CrewAlert not available in the iTunes App Store in my country?

Unfortunately, we are not able to offer CrewAlert in a number of countries, due to tax reasons. Please investigate if you are able to purchase the application in the US App Store instead. Note that CrewAlert Lite contains most of the features found in the full version and is available free of charge world-wide.

Which devices are supported?

Currently, we are only supporting the iOS platform; iPad, iPhone and iPod Touch.

I found a strange prediction of either sleep or alertness on my schedule. What could have happened?

Please check that the timings of the duty, including time zone transition, and your personal settings regarding time zones are correct. If you have a reasonable roster and still have problems, please take a screen shot and email it to us at crewalert_support@jeppesen.com.

Why are the predictions almost never reaching above 7 500?

The prediction is made for the average individual. When being fully rested, it turns out that people still have a significant variance in their self-assessment of alertness making the average score drop. When people are kept awake for a very long time however, the individual variation is smaller; basically everyone rates themselves as “very sleepy, fighting to stay awake” (which corresponds to the bottom of the scale).

There are two configurable alarm levels in CrewAlert, what should they be set to?

The alarm levels are primarily to enhance the visual on low/medium/high level of predicted fatigue. Low levels of predicted alertness is bad, high levels are better – there’s no single level appointed by Jeppesen/Boeing for a go/no-go decision. Keep in mind that the prediction is also an average of a population and not the prediction of the individual. Please refer to the alarm limits as guidance on the relative risk of fatigue between flights. The coloring of duties (green/amber/red) is there for visualization only. If your duties are always “in the green” you should consider raising the limits to more easily spot the duties with highest fatigue risk. If they are always red - you should consider lowering the alarm limits.

There’s a dotted line below the prediction in the graph view. Why?

The line serves as a reminder of variation between individuals and is meant to indicate the level over which 90 percent of the population is found. The level set in CrewAlert is currently very preliminary and will be updated in future versions of the application as more data becomes available.

There is no sleep appearing when I add a sleep/wake log.

A sleep/wake log is by default the period you are awake, unless you enter “sleep periods” within. Edit the sleep/wake log and add one or several sleep intervals within. (Since BAM continuously re-predicts sleep it is not enough to just enter sleep – for this reason a sleep/wake log is needed.)

If I do not agree with the afternoon rest that BAM predicts, can I change that?

No. BAM uses sleep patterns found valid/relevant for a population of crew. Recall that the roster and the prediction is not for you as an individual but for a large population operating that schedule and with the personal setting you have entered. To remove the nap in a specific case, enter a sleep/wake log with awake time to override the nap.

Why should I share my data?

Sleep science is short of data showing what actually is experienced by pilots in daily flight operations. We recognize that the data you share is not data collected under strict scientific oversight and cannot be assigned the same importance as e.g. a detailed survey. On the other hand, with large quantities of data it will still provide a lot of knowledge and help science forward. By sharing quality data regularly on your schedule, how you’ve felt or performed on the NPI, and how you slept, you will assist in creating a model that is relevant. In exchange, we will regularly update the alertness model for you.

How is my data uploaded and protected?

Data is transferred securely over an encrypted connection straight from CrewAlert over a wifi connection to a Jeppesen server. The data is de-identified and stored and processed respecting relevant data integrity legislation as well as the WMA Declaration of Helsinki.

Can my roster be imported electronically to CrewAlert so that I do not need to enter it manually?

CrewAlert has been prepared for this but the functionality will have to be activated after your airline has decided to upload the roster to you. Ask your airline IT department to contact Jeppesen at crewalert_support@jeppesen.com if interested. There are a couple of tools that do export into CrewAlert - take a look at Rosterbuster.com, or LogTen by Coradine Aviation. Note also that manual entry can be quick, feeding first departure/last arrival of each duty day.

I find it confusing to mix 24-hour time and AM/PM.

CrewAlert is built with the assumption that crew uses 24-hour time. The AM/PM is a local setting of your iPhone that can be changed.

I have another question or an idea for you.

Great! We are constantly in search of improvements based on operational experience. Please contact us at crewalert_support@jeppesen.com and let us know!