

Panasonic recommends Windows.

Panasonic



FINNAIR TRUSTS PANASONIC TOUGHPAD IN ITS AIRCRAFTS

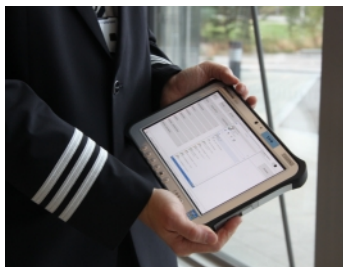
PANASONIC TOUGHPAD TABLETS PLAY AN IMPORTANT ROLE IN ALL FINNAIR COCKPITS.

Used in calculating take-off engine power and maintaining technical logs, the Toughpads have provided a handy replacement for a bag full of maps and manuals.



TOUGHPAD

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Toughpad FZ-G1 tablets for use in its Finnair's aircrafts

Finnair has acquired approximately 150 Toughpad FZ-G1 tablets for use in its aircrafts. In narrow-body Airbus aircrafts, there are two tablets for the cockpit and one for the cabin crew. In wide-body Airbus aircrafts used for long-haul flights, three tablets are provided for the cockpit and one for the cabin crew.

"The Toughpad is what we call an electronic flight bag or EFB," Finnair technical pilot Timo Seppälä explains.

"The pilots' tablets contain things such as airport navigation charts, technical manuals - which would fill over 10,000 pages if printed - and various applications required by the pilots."

Reliability and economy

One of Finnair's key computer applications is performance calculation. The pilot uses it to ensure performance requirements are met and to calculate optimal engine power for take-off. Performance values vary according to aircraft weight, runway, and airport conditions.

"This application is much easier on the engines. Some airlines use charts for performance checking, but the computer is much faster than a 'manual' check and thus also easier for the pilot," Seppälä says.

"Updating manuals online is easier than replacing papers.

The Toughpad's LTE data connection also allows us to view and update the aircraft technical log, where all the maintenance procedures, checks, and fuelling operations are recorded."

The Toughpad for cabin crew contains e.g. manuals and service instructions. With the tablet, the cabin crew can also report potential issues, for example a seat cover that requires cleaning.

"In the future, the data connection allows us to get passenger data and other flight-related information on the device," Seppälä says.

Toughpad best for the cockpit

Finnair has used computers in their cockpits since the 90s. As the previous generation of devices was reaching the end of its lifespan, the company began looking into new products.

"We initially looked into 20 different Windows 8 tablets, five of which were selected for further assessment. We had specific criteria, and a test group that included both pilots and cabin crew." According to Seppälä, the Panasonic Toughpad had several features setting it apart from the competition.

"One of the key distinguishing features was the display. Lighting conditions in the cockpit vary a lot. There could be direct sunlight from the window, so a sufficiently bright display is required. On the other hand, during dark hours the displays and instruments are dimmed to very low levels to allow maximum outside visibility."

Seppälä says that even on the lowest brightness settings, the displays on most tablets designed for home and office are far too bright.

"The Toughpad has a very wide brightness range, and Panasonic also created a custom firmware for us, giving greater range in lower brightness settings. This allowed us to match the brightness of the displays of the Toughpad-devices with our other cockpit displays," Seppälä explains. "The Toughpad also has superior function key design. It has large, clear, and well positioned function keys in the front."

Durability is crucial

According to Seppälä, Finnair knows from years of experience that durability in important aircraft computers is worth investing in.

"The other tablets we considered were designed for office and business use. Cockpit use requires higher levels of usability and durability, and the rugged design of the Toughpad put it above the others."

Other advantages identified by the test group were the replaceable battery, user-friendly digitiser pen, and a design that gives a good grip.

Good service

Finnair's Timo Seppälä lauds the co-operation with Kaukomarkkinat and Panasonic during the project. "We had great co-operation. Kaukomarkkinat was an excellent representative for Panasonic, and helped us a great deal with the customisation we required. In addition to the display, the charging current of the devices was adjusted to our needs."

"From the outset, Kaukomarkkinat and Panasonic understood the special characteristics of our operation. They were well-informed on aviation requirements, since other airlines are also using Toughpad-tablets and Toughbook-laptops. For example, Panasonic had already carried out many of the tests required by aviation authorities, which saved time for us."

Longer lifespan with Toughpad

According to Seppälä, tablets for pilots and cabin crew play a major role in daily operation, and their importance will grow in the future.

"The number of services available for these devices will increase. In-flight data connections will be possible in the future, which could allow e.g. updated weather radar images on the tablet," Seppälä says.

Finnair appreciates that the Toughpad tablets will have a longer lifespan than previous devices.

"Previous-generation devices had a physical lifespan of 3 to 4 years, after which they had to be replaced. Obviously devices also age in terms of features, capacity, and processing power, but we have estimated that the Toughpad-tablets will have a five-year lifespan with us."

