



AKV Inc. DCS1100 allows remote display of FLI data to enhance utility operations

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AKV, Inc. has received a supplemental type certificate for its DCS1100 data collection system, giving Airbus H125 operators the ability to view the aircraft's first limit indicator (FLI) on a remote display.

The system, developed in collaboration with Airbus Helicopters, is targeted squarely at utility operators. It allows pilots to keep their focus on an external load below them, while having the FLI (an instrument that displays the nearest limit for one of several engine parameters), hook weight and load counter shown on an iPad Mini on the cockpit floor in the same field of view.

In addition, the DCS1100 interfaces with the external load weighing system, allowing the hook weight to also be displayed on the tablet.

The kit consists of the DCS1100 data collection system box, a remote-mounted Bluetooth antenna to transmit the data, and a patented app, which allows the information to be displayed on a iPad Mini in real time, at a data rate of 50mS.

Jonathan Gunn, president and founder of AKV Inc., said he had been working on the system for some time — with the app originally developed for the company's ETM1000 exceedance trend monitor — when he was approached by Airbus, who offered to help bring it to market for the H125.

"Airbus worked with me to help develop the system because of the proprietary data I needed from the H125's FADEC to make it happen," said Gunn. "Airbus are really excited about it because they've been looking to develop something like this for a while."

It was about a two-year project to bring the DCS1100 to market, said Gunn, spanning the development of the hardware for the box, certification, the development of the app specific to the H125, and obtaining the patent.

Aside from relaying the engine data and hook weight, the DCS1100 also records it.

"The operator can then download that data and graph and trend it using our graphing software, so they can monitor the usage of the aircraft," said Gunn.

AKV Inc. is also working with Guardian Mobility to explore the potential to connect the DCS1100 with satellite devices, which would allow the data to be live streamed.

“There's definitely potential there to expand,” said Gunn. “Right now, we're just sending out little bits of information, but we can interface with the hook, weight, and some other operator-required items — and all that data could be sent.”

The system will be available for both new-build aircraft through Airbus, and as a kit for existing operators through AKV Inc.

Gunn said the system is “very simple” to install, requiring about 16 to 20 hours to do so. The DCS1100 is mounted on the co-pilot’s side of the cockpit, with the Bluetooth antenna on the pilot’s side.

All told, the system weighs about 2.5 pounds (1.1 kilograms), not including the iPad Mini. Gunn said it will be available for less than \$9,000.

The DCS1100 has been certified by both the Federal Aviation Administration and the European Union Aviation Safety Agency.