

Blue boxes taking FLYHT around world

Calgary firm develops air safety devices



Photograph: Christina Ryan, Calgary Herald

Matt Bradley, a vice-president at Flyht, shows off the company's blue box, which can flag potential flight problems by pulling data from an airplane's black box and sending that and other information to people on the ground.

By Kim Guttormson, Calgary Herald -- July 12, 2011

FLYHT's Matt Bradley calls it Onstar for airplanes.

The 'blue box' developed by the Calgary-based company, and installed in 220 planes around the world, isn't much to look at: a rectangular metal case.

But it offers a service no other company does -and one that could be useful for carriers that travel outside the range of radar tracking, including in the far north and across oceans.

FLYHT's Automated Flight Information Reporting System can provide a steady stream of data back to a plane's base, including fuel, mechanical, location and altitude information, and can send an immediate emergency message to various entities should that data exceed certain programmed parameters.

The company, with 60 employees, has partnered with Iridium Communications for data to be streamed from planes, via satellite, to the ground.

"There's nobody that actually does it right now," Bradley, vice-president of business development for FLYHT, the brand of AeroMechanical Services Ltd., said of the emergency signal. "We're the only ones in the world doing it."

The company already has orders for 30 of its newest model, the 228, slated for release this fall, including Monday's announcement of three planes based out of Europe.

FLYHT has been marketing the \$50,000 box for nine years -the company started with the goal of sending faxes from flight. But the discovery in April of the wreckage of Air France 447 -which crashed in the Atlantic Ocean in 2009, killing all 228 on board -has ramped up the discussion around whether more flights should carry similar technology.

Basically, Bradley says, FLYHT's blue box pulls data from a plane's black box and can send that and other information to people on the ground, in spurts or constantly, flagging potential problems. Normally black box information is accessed once a flight lands.

FLYHT clients can also add a service that sends an emergency message triggered by certain problems, but Bradley said not all clients have taken that option.

That message can arrive in a variety of ways, putting it front and centre for people who need to know, and Bradley said in a case such as Air France 447, people would have been alerted of an issue hours before normal channels would detect it.

"The Air France accident really underscored it's time to move into the 21st century for flight data recorders," says Peter Goelz, former managing director of the U.S. National Transportation Safety Board and now a senior vice-president with O'Neill and Associates. "With more and more extended range flights taking place, we need to be able to figure out how to get the data from an aircraft, should the worst occur.

"The guys at AeroMechanical have pretty good technology that really ought to be considered."

FLYHT was part of a working group assembled by French authorities after the crash of the flight from Rio de Janeiro to Paris, looking at what triggers would be available to determine there's an emergency.

The latest blue box version being released this fall has the ability to transmit much more information, including Aircraft Communications Addressing and Reporting System (ACARS) data.

"It will allow for certified communications between an aircraft and a ground agent," Bradley said. "As soon as they get off the coast, they can't communicate (ACARS) data. We pick up that data and send that signal through Iridium and get it to the airlines so they have no blanks in coverage anywhere.

"It's a very attractive addition to a fleet. If we're going to be on the larger aircraft you need to be able to do the ACARS over Iridium piece."

Right now, much of their target is business planes, with China a major market.

Bradley anticipates the new product will start resulting in larger contracts. He says the company is actively talking to both airlines and airplane manufacturers.

"In the next five to 10 years it's going to be put on planes by manufacturers," he said, adding if not for the emergency features than for "the other values it brings."

He cites one customer that has saved millions because information the box sent back allowed them to reduce the frequency of expensive inspections.

Goelz sees the biggest benefit in the emergency aspect of the system.

"The streaming aspect of the data recorder information would have enormous value for the aviation industry and for the public," he said, citing the expense of searching for a plane that goes down as Air France 447 did and the cost of not knowing what happened with a downed plane.

"It's simply going to take some pressure on a few of the national regulators, like the FAA in the United States, or Transport Canada, to push this. All you've got to do is look at Air France, and there but for the grace of God I can name two, three other accidents where we were extremely lucky recovering flight data recorders."

Bradley sees a bright future.

"I don't think we'll be having this conversation 10 years from now," he said.

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