Raytheon files for extension on Hawker 4000

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Wichita Business Journal
Updated: 7:00 p.m. CT May 28, 2006

Raytheon Aircraft Co. officials have asked the Federal Aviation Administration for more time to certify the Hawker 4000 business jet.

The FAA's five-year time limit to certify a new transport category aircraft -- regulations that apply to the Hawker 4000 -- expires May 31. Raytheon filed an extension request to head off the possibility that the company would have to restart the certification from scratch, says Elizabeth Cory, FAA spokeswoman.

"It's very uncommon," she says. "We're exploring the options with them. We haven't made any decisions yet."

Without certification, Raytheon cannot start deliveries of the aircraft and the company could face financial penalties from its customers. Raytheon had announced plans to deliver 10 Hawker 4000s this year and 16 next year.
And it's not the first time the company has faced delays with the 4000 program.

Raytheon needs more time to complete function and reliability testing, which is the final stage of the process, says Mike Turner, Raytheon spokesman. He would not comment on why certification could not be completed within the five-year time limit.

More delays

When Raytheon announced the Hawker 4000 in 1996, officials projected full certification in 2001. Delays in the development program postponed the start of certification process.

In December 2005, the company announced a delay in function and reliability testing to install lightning protection.

"This was supposed to help reinvent the company. Now it's the source of ongoing pain," says Richard Aboulafia, senior aerospace analyst with the Teal Group. "The good news is that they've done very well with the Hawker 400 and 800, sales have been superb. However, if they want to recover from being the weak fifth player, they need the 4000 to be a success."

Aboulafia says it's common for customers to negotiate financial penalties for missed delivery dates, but it would be impossible to know the exact impact because of the individual nature of each sales contract.

NetJets Inc., a fractional ownership company, ordered 50 Hawker 4000s, worth $1 billion, in December. Those deliveries are scheduled to start in 2007.

"If the plane is ultimately a good product that people like, people are not going to get very upset about it," says Cai von Ruhmor, analyst with Cowen and Co. "If, in fact, the FAA says we're going to have to go through a lengthy, extra certification that's going to add another six months, then people are going to go, 'Wait a minute.'" 

Composite construction

The Hawker 4000 has an all-composite fuselage with metal wings -- similar to the company's Premier I. However the two aircraft are very different.

The 4000's fuselage is built in two sections then joined together on the assembly line, and its size requires certification under FAA Part 25 regulations that also apply to commercial aircraft like those
manufactured by Boeing and Airbus.

"There are very little guidelines available for materials like advanced composites," says Yeow Ng, associate director for the National Center for Advanced Materials Performance, part of the National Institute for Aviation Research at Wichita State University. "The guidelines are written for metallic structures. So the FAA is learning along with the applicant in that regard, like 'How should we certify composite materials?'"

GROWING PAINS

It took Cessna Aircraft Co. four years and eight months to earn Part 25 type certification for its Citation Sovereign business jet -- an aircraft built on a metallic structure incorporating some composite parts.

Raytheon's Premier I is certified through FAA Part 23 regulations that apply to the Beech Bonanza piston-engine airplane and the King Air twin-engine turboprop.

The Premier I had its share of growing pains as it worked through the certification process.

"These are complex projects that are expected to take time to do correctly," Cory says. "Our interest, obviously, is to make sure everything is done correctly and done safely and meets all the regulatory requirements for a type certification. There are a lot of t's to cross and i's to dot."