

CSeries: Bombardier has upped ante for entire industry

BY FRANÇOIS SHALOM, THE GAZETTE APRIL 12, 2010



PurePower PW 1000G Engine for Bombardier's CSeries.

Photograph by: Pratt & Whitney Canada , Pratt & Whitney Canada

First of two parts

MONTREAL – A giant-slayer or crushed like a bug.

Say what you will about Bombardier Inc.'s project to build a large airliner, the CSeries, to compete with the bigfoots of the aerospace world, no one can deny it has made the aviation industry sit up and take notice. And to a large extent, the fate of the most ambitious and riskiest airplane program in Bombardier's 24-year airplane history rests not only on what the Montreal firm does, but on how its future competitors respond.

The world's two big-league airframers, Airbus SA and Boeing Co., once sniffed at Bombardier as regional stuff down-market, not their concern. They're concerned now.

The CSeries was formally launched 13 months ago; while Airbus and Boeing are not exactly quaking in their boots; the question in aerospace circles – the leitmotif in newsletters, consultants' research papers, notes to investors, blogs, aviation magazines and analysts' reports – is now "will they or won't they?" Re-engine, that is.

Re-engining refers to new, more efficient engines that Airbus and Boeing – Airbus most imminently – are considering putting on planes that have long proven their mettle in the sky, the A320 family for Airbus and the B737 family for Boeing.

That in itself is an indication of how the industry has had to focus on the CSeries, particularly its GTF (geared turbofan) engine that Pratt & Whitney developed for that plane. If the engine performs as advertised, cutting fuel burn by up to 20 per cent, it would represent a major step forward that Airbus and Boeing could not afford to ignore. For Air Canada, by way of example, fuel accounts for between 25 and 35 per cent of total operating costs – big money for an eternally precarious industry.

That forced attention to what Bombardier is doing has not been met with universal acclaim.

Teal Group aerospace consultant Richard Aboulafia said that “Bombardier poked a hornet’s nest, and then threw it at a bear.”

“The good news is that the GTF transformed the CSeries from a miserable product into a rather good one,” said Aboulafia. The bad news, he added, is that it has made re-engining for Boeing and Airbus “inevitable.”

Another respected firm, Bernstein Research, said chillingly last week that “an Airbus or Boeing re-engine would crush the CSeries.”

But it hedged a bit, calling Bombardier’s “CSeries ... the most important near-term threat while China(’s Comac C919) represents the most important long-term threat.”

Bernstein cast doubt on “Bombardier’s ability to bring the CSeries (to market) close to (its 2013) schedule or performance expectations, but added that Boeing and Airbus cannot afford to bet “that the CSeries will fall short.”

On the other side, analyst Nicholas Heymann with brokerage Sterne Agee on Wall St., is a firm – almost devout – believer in the CSeries.

“Once the industry figures out that plastic planes are the way to go, the CSeries will be far out front and impossible to catch,” said Heymann.

The “plastic plane” reference – meant as a good thing – is to the lighter carbon composites materials that Boeing used for its 787 Dreamliner and that Bombardier is using in parts of the CSeries, and that Heymann and others say will become the standard for new planes.

Aboulafia said that his biggest concern is the supply chain for the CSeries, particularly for the centre fuselage, which is made by China’s Shenyang Aircraft Corp. “They’re completely unknown and completely inexperienced,” he noted.

But Bombardier dismisses that concern, pointing to the plethora of offshore suppliers to Boeing and Airbus and the strict standards and processes to which Shenyang adheres.

In an interview, Airbus North America president Barry Eccleston said Airbus’s decision will be taken by the July air show in Farnborough. Most people interviewed expect Boeing to announce shortly after

Airbus, and to tailor its decision to that announcement – a no-go by Airbus would likely be met by the same from Boeing and vice-versa.

Their decisions are complex one, with many moving parts. Their first hurdle is an engine. Both have partnered to develop better engines, including a version of Pratt & Whitney's PW1000G geared turbofan as well as CFM International's LEAP-X, but none has been fully developed yet.

And both their plates are full. Boeing is still dealing with its much-delayed 787 Dreamliner and its stretched 747-8, and recently announced accelerated production of its widebody 747s and 777s. Airbus still bears the scars from its also-delayed A380 superjumbo and the Toulouse-based company is faced with a series of critical decisions, including about a major military transport plane and the planned A350, its response to the Boeing 777 and 787.

Gary Scott, the former Boeing executive who has been in charge of the CSeries program from the start, said in a March interview that "Boeing and Airbus today compete with a downsized version" of their 737s and A320s. "If they were to re-engine, it would make them better planes but not optimal. They'd put new engines on legacy airframes" that were not designed specifically for that engine, unlike the CSeries.

Raymond Jaworowski agrees. Given that re-engining would cut costs by 8 to 10 per cent from heavier, more expensive planes that cost more to operate, the senior aerospace analyst with Forecast International of Newton, Conn., said, "the CSeries promises something more to the market than re-engining does."

"In the environment that airlines operate in, that's a big selling point for the CSeries. But it all depends on how close to the promised efficiencies Bombardier can come. Airlines will not only look at the promised efficiencies re-engining offer, but how that compares to the CSeries."

Whatever happens, said Brian Foley of New Jersey-based aircraft analysis firm Brian Foley Associates, Boeing and Airbus are unlikely to keep their duopoly in large aircraft.

"They have been used to having the world's large-aircraft sandbox all to themselves," said Foley. But with Bombardier threatening to become a player with a technologically advanced larger plane, "they are not playing well together in that sandbox."

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