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Cessna Citation Columbus - Archived 6/2011

Outlook

- Citation Columbus was to be the largest jet in Cessna's lineup, allowing the company to push into super midsize segment
- The Columbus featured a clean sheet design; plans called for initial deliveries in 2015
- Economic weakness and a need to reduce expenditures led Cessna to suspend development in 2009

Orientation

Description. Twin-turbofan, medium/long-range, medium-capacity, executive/business transport aircraft.

Sponsor. Development and production of the Columbus is sponsored by the Cessna Aircraft Company.

Status. Development suspended, possibly permanently.

Total Produced. None to date.

Application. Medium/long-range executive/corporate personnel transportation. Additional military applications include flight training, communications, flight inspection, air ambulance, and VIP/government personnel carriage.

Price Range. Estimated at \$27 million in 2009 dollars.



Citation Columbus

Source: Cessna

Cessna Citation Columbus

Contractors

Prime

Cessna Aircraft Co	http://www.cessna.com , One Cessna Blvd, PO Box 7706, Wichita, KS 67277 United States, Tel: + 1 (316) 517-6000, Prime
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Subcontractor

Eaton Aerospace Ltd - Fuel Systems Division	http://www.eatonaerospaceltd.com , Abbey Park, Titchfield, Fareham, PO14 4 QA Hampshire, United Kingdom, Tel: + 44 1329 853000, Fax: + 44 1329 853797, Email: eal-sales@eaton.com (Fuel System)
Goodrich Corp	http://www.goodrich.com , Four Coliseum Centre, 2730 W Tyvola Rd, Charlotte, NC 28217-4578 United States, Tel: + 1 (704) 423-7000, Fax: + 1 (704) 423-7002, Email: corporate.communications@goodrich.com (Landing Gear)
Hamilton Sundstrand	http://www.hamiltonsundstrand.com , One Hamilton Rd, Windsor Locks, CT 06096-1010 United States, Tel: + 1 (860) 654-6000, Fax: + 1 (860) 654-2621, Email: hs.general@hsd.utc.com (Engine Control System)
Pratt & Whitney Canada	http://www.pwc.ca , 1000 Marie-Victorin Blvd, Longueuil, J4G 1A1 Quebec, Canada, Tel: + 1 (450) 677-9411, Fax: + 1 (450) 647-3620 (PW810 Turboprops)
Rockwell Collins Inc	http://www.rockwellcollins.com , 400 Collins Rd NE, Cedar Rapids, IA 52498-0001 United States, Tel: + 1 (319) 295-1000, Fax: + 1 (319) 295-5429 (Pro Line Fusion Avionics System)
Spirit AeroSystems	http://www.spiritaero.com , 3801 S Oliver St, PO Box 780008, Wichita, KS 67278 United States, Tel: + 1 (316) 526-9000, Fax: + 1 (316) 526-1845, Email: communications@spiritaero.com (Fuselage)
Vought Aircraft Industries Inc	http://www.voughtaircraft.com , 9314 W Jefferson Blvd, Dallas, TX 75211 United States, Tel: + 1 (972) 946-2011 (Wing)

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Technical Data

(Preliminary)

Design Features. Low-swept-wing design with swept T-tail, retractable tricycle-type landing gear. The aircraft is an all-aluminum design and features hybrid fly-by-wire controls, with a part of each primary flight control being operated using fly-by-wire and another part by cables.

	Metric	U.S.
Dimensions (External)		
Length overall	24.4 m	77 ft
Height	7.5 m	24.7 ft
Wingspan	24.4 m	80 ft
Dimensions (Internal)		
Cabin internal width	2.08 m	6.8 ft
Cabin height, max	1.85 m	6.1 ft
Cabin length (bulkhead to bulkhead)	8.31 m	36.3 ft
Weight		
Max takeoff weight	Undisclosed	Undisclosed

Cessna Citation Columbus

	<u>Metric</u>	<u>U.S.</u>
Performance		
Range, with full fuel and 36,110 pounds (16,375 kg) takeoff weight	7,408 km	4,000 nm
Max cruise speed (37,000 ft)	904 km/h	488 kts
Ceiling	13,716 m	45,000 ft
Takeoff distance	1,646 m	5,400 ft
Landing distance	1,067 m	3,500 ft
Propulsion		
Columbus (2)	Pratt & Whitney Canada PW810C turbofan engines rated 39.28 kN (8,830 lbst).	

Seating

Standard seating for 8-10 passengers.

Program Review

Background. Formerly known as the large cabin concept aircraft, the Citation Columbus is a clean-sheet design that was approved for development by corporate parent Textron's board of directors on January 23, 2008. At around 77 feet (23.5 m) in length with a wingspan of 80 feet (24.4 m), the Columbus was envisioned as Cessna's largest business jet, an aircraft that could provide a comfortable, luxurious ride for up to 8-10 passengers at Mach .80.

Pratt & Whitney Canada was tapped to supply the aircraft's PW810 engine, and Cessna selected Rockwell Collins' Pro Line Fusion™ avionics, which featured four landscape high-resolution LCD displays and several other high-end features, including an available Head-up Guidance System (HGS™), graphical flight planning, synthetic enhanced vision, and a hazard detection system.

Cessna management said publicly that it planned to reduce the cost but increase the speed of development by adopting a strategy in which the company would act more as an integrator and assembler than a manufacturer

on the program. Production of major exterior and interior components was to be performed by suppliers. Cessna described this approach as a departure from its usual model of aircraft development. Given the problems encountered by other manufacturers in recent years after giving up close supervision and involvement in each aspect of the development process, the new method adds a new level of risk to the program. However, Cessna Chairman, CEO, and President Jack Pelton told reporters in early 2008 that the cost of development would be considerably higher if the company built the entire aircraft in-house.

Cessna's planning called for the aircraft to be certificated by 2013-2014 and for deliveries to begin in 2015. However, the program was suspended in 2009 as the global recession mangled the business jet market and led Cessna's management to cut back on funding for development in an effort to save cash. It is possible that the Columbus program could be revived in the future as the business jet market recovers, but as of early 2010, no plans to restart development had been announced.

Funding

Cessna Chairman Jack Pelton estimated the cost of developing the Citation Columbus at \$775 million in early 2009.

Timetable

<u>Month</u>	<u>Year</u>	<u>Major Development</u>
Jan	2008	Development of Citation Columbus approved by Textron's board
Feb	2008	Public launch of the Citation Columbus
	2009	Development suspended

Cessna Citation Columbus

Forecast Rationale

Cessna launched its new Citation Columbus business jet in February 2008. The Columbus was to be a comfortable, luxurious ride for up to 10 passengers over a distance of up to 4,000 nautical miles (7,408 km), a range long enough to carry eight passengers, for example, from New York to Munich nonstop. The cabin is 15.5 inches wider than that of the Citation X, currently the company's largest business jet.

Cessna's planning called for the aircraft to be certificated by 2014, but when the global economic slowdown led to carnage in the business jet market, these plans went out the window. First, in March 2009, Cessna announced that engineering development work on the Citation Columbus was being extended by "at least six months." Later in the year, the company indicated that the program had been suspended

altogether in order to cut expenditures at a time when production at the company was being slashed and employees were being laid off.

The Columbus was designed to compete in the super midsize segment of the business jet market, a highly competitive sector filled with strong players such as Bombardier's Challenger 300, the Hawker Beechcraft Hawker 4000, and Embraer's Legacy 600. Gulfstream's G250 and Dassault's Falcon SMS are also in development for the same segment. It is possible that Cessna will revive the Columbus program as the business jet market recovers and more cash is available to fund development of new aircraft. However, our current forecast does not include production of the Columbus.

Ten-Year Outlook

No production forecast.

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