

Bell 429 light twin helicopter



Preliminary Specifications

Empty Weight	4300 lb	1950 kg
Max Gross Weight	7000 lb	3175 kg
Useful Load	2700 lb	1225 kg
Cargo Hook Capacity	3000 lb	1363 kg
Hoist (outside skids)	600 lb	272 kg
Standard Fuel Capacity	215 US Gal	748 litres
Cabin Volume	200 ft ³	5.7 m ³

Preliminary Performance

Vh	142 knots	264 km/h
HIGE (ISA)	12'000 ft	3658 m
HOGE (ISA)	9'300 ft	2835 m
Maximum Range	365 nm	676 km
Wheeled Gear Optional		

http://www.deepblue.ch/aviation/html/bell_429.html

HR Textron Partners with Bell Helicopter to Design Flight Control Actuation System

Farnborough, England .– July 17, 2006 -- HR Textron (Santa Clarita, California), an operating unit of Textron Systems, has partnered with Bell Helicopter to design and logistically manage the Flight Control Actuation System (FCAS) for the Bell 429 light twin helicopter. The FCAS is being developed and will be delivered to Bell as an integrated system. The 429 made its debut at the 2004 HAI tradeshow. Textron Systems is a Textron Inc. (NYSE:TXT) company.

Rohn Olson, chief engineer of Fluid Power and Controls, Bell Helicopter, said, "The collaboration of Bell Helicopter with HR Textron for both subsystem development and supply chain management has provided an excellent opportunity to merge the technical expertise of both companies and to enhance HR Textron's capability offering and business opportunities. Their commitment to build a full-scale system test rig, and to present production deliveries in a 'value-added' kit form will also bring tremendous benefits to the 429 program."

Joe Klocko, vice president, business development, HR Textron, said, "HR Textron has more than 50 years of experience in designing and manufacturing flight controls, components and systems. The development of the FCAS leverages our expertise in several areas -- including systems integration and supply chain management -- enabling us to offer our customers a total package solution in performance, reliability and total cost."

The FCAS includes primary flight control main and tail rotor actuators; hydraulic pumps, hoses, tubes; integrated hydraulic manifold incorporating control valves and reservoir; electromechanical trim (autopilot) and SCAS actuators; and mechanical control tubes, bell cranks and idlers. HR Textron will procure, assemble and test the system as well as design and manufacture key components.

Rick Bartz, Bell 429 program manager, HR Textron, said, "For the 429 program, we're performing systems engineering and integration, validating requirements and system characteristics through actual testing, and managing the entire system supply chain for our customer. We'll also deliver the system in kit form to the 429 assembly line point-of-use. The logistics aspects of the program contribute very effectively to Bell's acceleration of the 429 production cycle, saving time and minimizing costs."

Systems Integration Simulation and Testing

Validation of FCAS requirements will be performed on a full-scale "iron bird" System Integration Rig (SIR) at the HR Textron facility. The SIR will also provide analysis and evaluation support during flight tests, and enable exploration of control system handling qualities. The SIR will include the FCAS and all pilot input controls and linkages. It will be operated by a computer-controlled system that inputs both pilot and flight loads and monitors sensor generated data during testing.

About Textron Systems

Textron Systems provides innovative technology solutions to meet the needs of the global aerospace and defense industries. The company supports military precision engagement and dominant maneuver with strike weapons, mobility and surveillance systems. The Textron name is well known in the areas of advanced weapons, surveillance systems, aircraft control components, specialty marine craft and armored vehicles. Textron Systems Corporation ("Textron Systems") is a wholly-owned subsidiary of Avco Corporation. Avco Corporation is wholly-owned subsidiary of Textron Inc. More information is available at www.systems.textron.com.

About Textron

Textron Inc. is a \$10 billion multi-industry company operating in 33 countries with approximately 37,000 employees in continuing operations. The company leverages its global network of aircraft, industrial and finance businesses to provide customers with innovative solutions and services. Textron is known around the world for its powerful brands such as Bell Helicopter, Cessna Aircraft, Jacobsen, Kautex, Lycoming, E-Z-GO and Greenlee, among others. More information is available at www.textron.com.

Media Contact:

Maureen Collins

1-661-702-5244

Email: mcollins@hrtextron.textron.com

Farnborough Air Show - July 17, 2006 - Bell Helicopter, a Textron Inc. (NYSE: TXT) company, today announced continued progress of its pace setting 429 helicopter. This light twin class helicopter, first introduced last year, was conceived to fill a market void and has accumulated 213 orders to date. This high order rate verifies Bell's designed approach of enlisting voice of the customer in critical design decisions.



Bob Fitzpatrick, Senior Vice President for Marketing and Sales was quoted as saying, "The 429 has been a pleasure to market. With the room and performance of a medium twin, but priced for the light market, we think the 429 has almost limitless potential."

Production at Bell's Mirabel, Canada facility is on track for first flight later this year. Currently the first model is moving down the production line with systems installation including wiring, fixed controls, fuel systems, heating systems, pitot/static systems and the power distribution. Certification from Transport Canada Civil Aviation and the United States Federal Aviation Administration is planned for 2007. Initial production is scheduled for late 2007 and European Aviation Safety certification will follow in mid-2008.

The 429 is the first Bell production helicopter produced with Modular Affordable Product Line (MAPL) components. MAPL is an innovative approach to helicopter production where multiple parts are designed to work on a variety of helicopter. This not only speeds up production, but lowers production costs and ultimately lowers acquisition costs.

Bell Helicopter is an industry-leading producer of commercial and military, manned and unmanned vertical lift aircraft and the pioneer of the revolutionary tilt rotor aircraft. Globally recognized for world-class customer service, innovation and superior quality, Bell's global workforce serves customers flying Bell aircraft in more than 120 countries.

Textron Inc. is a \$10 billion multi-industry company operating in 33 countries with approximately 37,000 employees in continuing operations. The company leverages its global network of aircraft, industrial and finance businesses to provide customers with innovative solutions and services. Textron is known around the world for its powerful brands such as Bell Helicopter, Cessna Aircraft, Jacobsen, Kautex, Lycoming, E-Z-GO and Greenlee, among others. More information is available at www.textron.com.

Bell 429 makes theatrical entrance

by R. Randall Padfield

“Charlie” was actually Bell president and CEO Mike “Red” Redenbaugh. “Today we are introducing the new Bell Helicopter 429, the next step in the light-twin IFR product that you so need in this industry,” he said, standing in front of the 429 executive mockup. A few moments later, the curtain on the adjacent stage rose, revealing a mockup of a 429 air-medical version. Air Methods completed the interior and will likely be the launch customer, having ordered 15 aircraft.

Bell has orders for more than 90 Model 429s, about 60 of them converted from orders for the 427i, announced at Heli-Expo last year. In fact, all 427i orders were converted to the 429, despite its higher price of just under \$4 million. Bell quoted the 427i’s price as “\$3 million plus.”

“After we announced the 427i last year,” Redenbaugh told **HAI Convention News**, “we spent about six months in customer interactions. They told us they liked the 427i, but when we told them what we were planning with our MAPL, they really became interested. The fact that all 427i customers converted to the 429 shows that they understand its added value.”

The 7,000-pound-mtow 429 is not so much a derivative of the 427 as it is a hybrid of the 427 and what will be a future MAPL (modular affordable product line) helicopter. It incorporates, Redenbaugh said, nine MAPL improvements. Most noticeable are the changes to the cabin, which has been opened up. The floor is flat, with all fuel now under it, and the flight control “broom closet,” formerly centered behind the cockpit, is gone. The flight controls are now routed through a closet behind the pilot’s seat. Other MAPL improvements include a new glass cockpit, main rotor and four-blade tail rotor.

First flight of the Pratt & Whitney Canada PW207-powered 429 is planned for early 2006, although some components will fly on a 427 test aircraft this year, the Bell CEO said. Certification is planned for the first quarter of 2007 and first deliveries sometime later that year.

A key aspect of the program is the participation of Korea Aerospace Industries and Mitsui Bussan Aerospace Co. of Japan as risk-sharing partners. KAI already builds cabins for the 412 and 427, so it will probably build the 429 cabins as well. Redenbaugh said Bell and KAI were still discussing exactly what KAI would do, but the Japanese company will likely also provide some engineering services. Mitsui Bussan, a large trading company, is a financial investor and will aid Bell with sales and marketing in the region. Bell will do the final assembly at its facility in Mirabel, Quebec, and will handle flight-testing and certification.

Bell 429 Preliminary Data

Mtow	7,000 lb
Empty weight	4,300 lb
Useful load	2,700 lb
Cargo hook capacity	2,800 lb
Standard fuel capacity	215 gal
Max speed	142 kt
Hover in ground effect	12,000 ft
Hover out of ground effect	9,300 ft
Max range	350 nm
Endurance with IFR reserve	3.8 hr
DOC	>\$500/hr
Base price	\$3.95 million