

# Bell 429 Newsletter



Number 1

May 2006

## Build progress

Aircraft No. 1 build is progressing well for first flight in the third quarter of this year.

The cabin, nose and aft fuselage were mated

in the fuselage splice fixture in early January.

The cabin fuselage was completed Feb. 21

and moved to the final assembly line. A transmission with hydraulics control package attached was checked for fit and installed successfully in about half an hour on April 11. Firewall and engine installation was expected to be completed by April 21.

Aircraft No. 2 main cabin and nose are mated in the splice fixture.

### Orders

The 429 aircraft is approaching 200 orders!



The cabin of 429 aircraft No. 1 is shown in final assembly at the Mirabel manufacturing facility. The cabin, nose and aft fuselage were mated in early July.



The cabin of 429 aircraft No. 2 is assembled at the Mirabel manufacturing facility.

## AirMedic announces order

Bell Helicopter and AirMedic of Quebec, Canada, held a joint press conference March 21 at the Bell Mirabel facility to announce the order of two 429s for this Quebec-based humanitarian organization. AirMedic selected the 429 not only for Bell's reliability and outstanding customer support, but also for the 429's great EMS features and value, including cabin volume, floor space and aircraft performance.

**Bell Helicopter**  
A Textron Company

PO Box 482 • Fort Worth, TX 76101

The Bell 429 Newsletter is a publication of Bell Helicopter Textron, Inc.

Editor/Designer  
**Jeff Parish**

For comments or questions, please contact:

**Andy Andraous**

Director, 429 Business

Operations

E-mail: 429designed4u@

bellhelicopter.textron.com

Phone: 450.971.6500,

Ext 2841

The Bell 429 is part of the Modular Affordable Product Line (MAPL) Program, which is receiving an investment totaling 230 million (CADN\$) from both the Government of Canada's Technology Partnerships Canada program, and from the Government of Quebec's Investissement Quebec.

## Flight testing events successful

Bell Helicopter has successfully completed flight testing on the following 429 equipment and features:

- Tailrotor control cable
- Basic engine inlet
- Engine cooling with the new engine compartment design
- Engine exhaust
- Engine surge performance at altitude
- Bell new Autopilot & Flight Director
- Dual hydraulics

These tests were performed on a modified 427 flown at Mirabel and in Colorado.

The new main rotor, which includes the hub and blades, has been successfully flown on a 427 test helicopter. The new rotor successfully completed rotor stability and basic envelope expansion testing. Flight test envelope demonstrated thus far has been for airspeeds up to 155 knots, and altitudes to 20,000 ft. with results confirming initial stability and performance estimates. Bell flight test pilots who flew the new rotor were very impressed with its performance and characteristics.



New main rotor blades are being evaluated in a modified 427 development helicopter at the Mirabel facility.

## 429 makes appearance at trade shows

The 429 utility mock-up was on display at the Bell Helicopter booth at FIDAE Air Show in Santiago, Chile, March 25-31. The 429 drew big crowds and received outstanding comments from helicopter pilots and operators. The mock-ups will also be displayed at the following events:

- NAB 2006, Las Vegas, Nevada, April 22-27
- EBACE 2006, Geneva, Switzerland, May 3-5
- ILA, Berlin, Germany, May 16-21

## Helicopter floatation systems

There are two types of floatation systems in a helicopter: Emergency floatation system and ditching floatation system.

A ditching floatation system requires an aircraft to remain in water for a short period of time after ditching to allow people to escape to the life raft. Life rafts and vests, which weigh about 100 pounds, must be carried on board if the helicopter is equipped with a ditching system.

An emergency floatation system is designed to allow the helicopter to float for an extended period of time up to sea state 4. The increased buoyancy required for the emergency floatation system allows the aircraft to float higher above water, which eases towing. The system also weighs 10-15 pounds more.

Bell is considering designing the 429 floatation system to meet the ditching certification requirement. Although we are not intending to fully meet the "emergency floatation system" certification requirement, we intend to provide floatation capability on water for extended period of time.

***We want to know!*** *Would you prefer to have the 429 floatation system fully certified for emergency floatation system capability (knowing this will increase the system weight by 10 to 15 lbs), or does the capability of the 429 ditching system described above meet your needs?*

*If you are planning to operate your 429 with a floatation system, please send your response as soon as possible to [429designed4u@bellhelicopter.textron.com](mailto:429designed4u@bellhelicopter.textron.com).*

## Key performance parameters

Aircraft weight, cost and direct operating cost are meeting our targets. Bell has an extensive effort in place internally and with suppliers to control weight and to ensure that weight growth is minimized during development. To date, Bell has eliminated about 200 pounds from the 429.

## EASA certification

A program review with European Aviation Safety Agency (EASA) specialists was held the second week of March. A follow-up meeting is scheduled for May with the EASA flight test team. EASA validation is scheduled for nine months after basic aircraft certification with Transport Canada.

## Maintenance program meeting goes well

Bell's recent MSG-3/CMAP (Maintenance Steering Group-3/Customer Maintenance Advisory Panel) maintenance program meeting for the new light twin went well.

With an introduction to the rotating controls and hydraulic systems, the team conducted an in-depth analysis covering everything from fault analysis to inspection requirements and minimum master equipment list determination.

Our CMAP team members and authorities from Canada, United States, Germany, Brazil and Denmark have contributed a tremendous amount of knowledge and experience to improve the maintainability of the 429 aircraft.