

Electric aircraft may take wing soon

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Global aerospace and defence firm EADS is all set to fly EFan, its electrically powered aircraft, by the end of the year, which is expected to revolutionize the market, said the company.

The prototype has been developed as part of EADS' hybrid and electrical propulsion system research.

Powered by 120 cells of Lithium Polymer, the aircraft will have an endurance of about 45 minutes to 1 hour and the maximum speed it can touch is 220 kmph.

Pointing out that it will take time before the aircraft goes into service, Sebastien Remy, head of EADS Innovation Works, said : "We should be able to fly it by the year end.

We have the technology ready for a small aircraft, and it can be used for unmanned aerial vehicles (UAVs), micro-air vehicles (Micavs) and helicopters."

Remy believes the product has a great future given the multiple applications, and the aircraft will have high utility in the leisure industry.

The team working on the project has broken away from the conventional method of using batteries. "You will not find a big **battery** box in the aircraft. We have done away with that. Instead, the cells are distributed along the wings and the body and are monitored individually. The pilot will have a cockpit equipped to reconfigure the batteries," he said.

The E-F an project originated during the Paris Airshow 2011, as a follow-on to the first cooperation between EADS Innovation Works and Aerocomposites Saintonge (ACS).

EADS Innovation Works is responsible for the electrical system and Didier Esteyne, technical director of ACS and E-F an designer, for all other parts of the aircraft.

The E-F an design process began in late 2011 and the final go-ahead for the technology demonstrator was given in October 2012.

Since then, the E-F an has gone through an accelerated development and construction phase to enable the aircraft's unveiling at the Paris Air Show in June 2013.

The next step in the project is test flights, industrializing the product and certifying for its use by aero clubs.

Remy said the attitude recognition system that the EADS Innovation Works team in Bangalore is working on will not be ready in the next few months, as reported earlier.

It is an ongoing research.

Aircraft will run on 120 Lithium Polymer batteries which will be placed along the wings. The **batteries** will last up to 45 minutes to 1 hour.

The aircraft can touch a maximum speed of 220 kmph. Technology can be used to fly unmanned air vehicles, micro-air vehicles and helicopters. Potential use in leisure industry, meteorology, disaster management and defence applications.

SOURCE *The Times of India*