

## Boeing Creates and Flies First Fuel Cell Airplane

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Boeing Corporation announced on April 3 that, for the first time in aviation history, it has flown an airplane entirely on hydrogen fuel cell power. The pilot used a combination of the fuel cell and a lithium-ion battery to climb to an altitude of 1,000 meters (3,300 feet) above sea level. The pilot then switched off the battery power and flew for 20 minutes at 100 kilometers per hour (62 miles per hour) only on fuel cell power from hydrogen. Three test flights were conducted in Madrid in February and March.



photo from Boeing

The airplane is based on a 2-seat Dimona propeller plane built by Diamond Aircraft Industries of Austria. It was modified by Boeing Research and Technology Europe to use a PEM fuel cell/lithium-ion battery hybrid system powering an electric motor. The fuel cell is rated at 25 kW gross output, and the electric motor is rated at 30 kW continuous power, providing a peak output of 75 kW for takeoff.

Boeing envisions this technology being used to power small manned and unmanned aircraft, according to a press release. However, the company does not suggest that the technology may be used to power large passenger airplanes, though it may be able to power secondary power-generating systems in these planes.

### Sources:

"Aviation companies look to alternative fuels". Associated Press via International Herald-Tribune. 27 May 2008.

<http://www.iht.com/articles/ap/2008/05/27/news/Germany-Berlin-Air-Show.php>

"Boeing Successfully Flies Fuel Cell-Powered Airplane" Boeing Press Release. 3 April 2008.

[http://www.boeing.com/news/releases/2008/q2/080403a\\_nr.html](http://www.boeing.com/news/releases/2008/q2/080403a_nr.html)