

Electric Cri Cri

If stardom is measured by camera time and the number of drooling onlookers, then the Green Cri was undoubtedly the star of the recent Paris Green Air Show. The experimental aerobatic electric aircraft hasn't yet spent any time in the air, but that didn't seem to matter. Its four engines, gorgeous smooth lines and intriguing bubble pilot enclosure ensured that it remained constantly within the camera frames of visitors and journalists alike.

The Green Cri was created as a scientific research aircraft by EADS Innovation Works and Aero Composites Saintonge. As its name suggests it was based on the limited, yet popular, short range MC-15 Cri Cri ultralights first built in the 1970s (pictured below). In fact, its dimensions are the same as the MC-15, having a wingspan of just over 16 feet and being some 12 feet 10 inches long and 4 feet in height.



Instead of the fuel engines sitting in front of each wing, the Green Cri test prototype sports four high voltage, low intensity brushless electric motors with counter-rotating propellers. To keep the aircraft's weight down, it's been made from lightweight carbon composite structures. This helps to balance out the 26.8kg four pack of Lithium Polymer batteries, each providing 100V (5Ah). Once it does get to actually take off, its overall weight (including the pilot) will be just 175.5kg.

Modification to the design and integration of the electric engines has resulted in a 20 to 30 per cent aerodynamic efficiency gain. This is expected to help the aircraft achieve 30 minutes of cruise flight at 110kph, or 15 minutes of aerobatics at up to 250kph on a single hour-long charge of the batteries. EADS Innovation Works also expects a climb rate of approximately 5.3 meters per second when it gets to make its maiden flight in the near future.



The Green Cri is not the first electric aircraft built by the European Aeronautic Defense and Space Company. A two-engined earlier version carrying 45kg battery weight made a brief test flight in 2009, but sadly suffered from electrical component overheating and returned to the ground somewhat unceremoniously after about seven minutes.



Unfortunately, as it was built as an experiment in green energy propulsion

technologies, the Green Cri is unlikely to see commercial development. It should, however, provide useful data for the creation and adoption of zero emission propulsion technologies in future aircraft.

Thanks Howard Jones