Light Aircraft - Flight Simulation Analysis

LAA
Light Aircraft Association

- Design a flight simulation test setup to measure aircraft performance.
- Identify appropriate testing inaccuracies.
- Interpret flight simulation test results to evaluate performance.
- Compare measured and theoretical aircraft performance.
- Identify and quantify factors affecting aircraft performance.

This one day course has been designed in partnership with the LAA and Coventry University. It will give an introduction to the theory and practice of flight simulation testing and an appreciation of performance effects. In particular, it will offer a practical insight into the changes in performance behaviour as the design of an aircraft is changed.

Who should attend?

Anyone with an interest in light aircraft design, build and flight. This course does not require previous qualifications, although prior knowledge of light aircraft is recommended.

Course content

This course will include:

- An overview of aircraft design, glides, climbs, take-off, landing and turns, with alignment to the CAP 733 Permit to fly regulations.
- A practical demonstration of performance flight tests in the Merlin Simulator to contextualise theory, resulting in a visual representation of data for later comparable analysis.
- An analysis of propulsion choice, drag curves, power curves, range and endurance.

- Measurement of the performance of a light aircraft, including a comparison of data understanding test inaccuracies.
- A demonstration using the measured results to calculate performance with theoretical values.

Location

This course will be held in Coventry University's new £55m Engineering & Computing building. Based in Coventry City Centre, there is ample parking and easy access from the train station.

Delivery

The course will be delivered by academic experts with industry experience from Coventry University.

Please check www.lightaircraftassociation.co.uk to book on the next scheduled course.

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