

IT FLIES UK

ATLAS carries off first prize

IT FLIES – since its inception in 2000, has been held at several different locations, including universities, the Empire Test Pilots' School and the Royal Aeronautical Society. The competition format of the entries giving a ten-minute design project presentation followed by a test flight of their aircraft design is challenging, and has produced some great, practical and innovative ideas, especially in the past two years.

This year's Competition was held for the first time at The University of Manchester. As three teams from the US and The Netherlands flew in to compete, this proved to be an excellent location with great facilities and the international airport close by. With students from several different countries present a friendly, international atmosphere was prevalent during the day, conversations were in English, French, Dutch, and Spanish – but the students had a common thread – the love of aircraft.

As usual, a brilliant competition, this time with students from The Amsterdam University of Applied Sciences winning three prizes. Test pilot judges were Dave Southwood and Gordon McClymont from The Empire Test Pilots School. Our judge for the project presentations was Mike Southworth from the Royal Aeronautical Society's Flight Simulation Group.

Dave Southwood, who has judged for a number of years, remarked: "This year's IT FLIES competition featured some very strong and fascinating entries. It was a multi-national event with teams from The Netherlands and the US, as well as from the full range of the UK. There was a philosophical difference in the context of the entries from each nation. The UK entries were models derived from internal university department requirements, the original concept for the competition. The Netherlands entries were simulator models of designs from a different university and the US entry from Dayton was a model developed as part of the design process for a future crop spraying aircraft. This variety added so much to the richness of the competition. As ever, the scope of the aircraft types modelled resulted in marked differences in what the students managed to achieve in the time available. Simpler, low-speed aircraft models were able to be developed in greater depth to a higher level of fidelity than the supersonic and variable geometry types. However, the teams that attempted to come to terms with the very capable supersonic modelling of the current Excalibur software learned at least as much by tackling a greater breadth of stability and



Dave Southwood in the 'cockpit'.

control characteristics over a wider flight envelope. This competition was, once again, a fascinating flight testing opportunity for the judges."

Students from The University of Manchester's Flight Simulation Society played a large role in the organisation of the day – and also rounded up the international and visiting UK teams for a meal the evening before.

The winner was Sam Le Poole from the Amsterdam University of Applied Sciences with ATLAS, an unmanned blended wing body cargo freighter. This was the first time that students from Amsterdam had competed in an IT FLIES competition. Sam said:

"I am very honoured to say that I won the IT FLIES competition 2017 in Manchester. It was the first time the University of Applied Sciences of Amsterdam took part in this competition.

After a great educational day with presentations and flight testing of seven different models, it turned out that the ATLAS had the best handling qualities and won the competition.

This success, of course, also reflects on the students of the Faculty of Aerospace of the Technical University of Delft, who made the original design. Another factor of success is the tests which were performed on the simulators in Amsterdam. The flight tests were executed by a real (test) pilot. Because of the test by real pilots, the feedback is very useful and is used to improve the handling qualities. It was a great learning experience."

Second place went to the other Amsterdam entry, Mike Hartman's E-SPARC – an electrically sustainable propelled aerobatic racing aircraft designed with Red Bull Air Races in mind. Gordon McClymont's test pilot's notes on this design ended with: 'Would like to buy one!!'

Sam and Mike's aero lecturer at AUAS is Raymond Teunissen who is a member of the RAeS Flight Simulation Group and an ex-KLM training captain.

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Hunter Johnston and Jacob Korczyk from The University of Dayton, Ohio, brought over their entry from IT FLIES USA this year – the appropriately named 'SWARM', a crop duster aircraft created and designed for an industrial client. This design was entered over at Dayton in April but, having refined the design from the US test pilot's comments, it enabled Dave Southwood to make a couple of low altitude spray runs over Heathrow!

Very many thanks to our sponsors this year, the Royal Aeronautical Society Flight Simulation Group (second and most innovative design prizes), and *The Aviation Historian* (third prize).

As ever, the combination of their project presentations, plus the test flights of their aircraft designs, showed the students more of a 'real world' scenario – after all, paper designs don't always translate into practical solutions. It is also noticeable that, over the 17 years that the Competition has been running, there is a growing interest in flight simulation and its purposes and even as a career opportunity. This year, in particular, it has been a real pleasure to work with so many talented and capable students.



The Harrier Trophy is presented to Sam Le Poole.

and student membership of The Royal Aeronautical Society – Sam Le Poole, Amsterdam University of Applied Sciences

Second Prize

£300 and also the £200 prize for The Most Innovative Design
Mike Hartman, Amsterdam University of Applied Sciences

Third Prize

Copies of *The Aviation Historian*
Ugne Kiudulaite and Ruta Marcinkeviciute, The University of Manchester, single-engine, closed-wing aircraft.

Prize for the Best Project Presentation

Copies of John Farley's book *A View from the Hover*
Hunter Johnston and Jacob Korczyk, The University of Dayton

Finally, a huge thank you to all our judges for giving up their time, and to the University of Manchester for hosting the lunch, and for their impeccable organisation of the day.

Marion Neal

Marketing Director
Merlin Flight Simulation Group

The official results

First Prize

£1,000 from Merlin Products Ltd, the Harrier Trophy

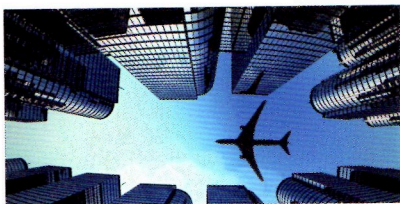
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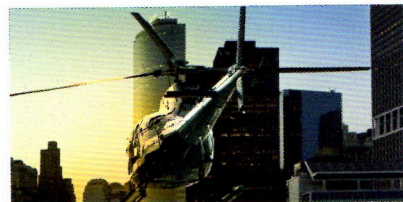
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