

Scientific Committee

Gregg Abate, US Air Force Research Laboratory, USA
Christian Boller, University of Sheffield, UK
Nicolas Dufetelle, DGA, France
Charles Ellington, Cambridge University, UK
Peter Ifju, University of Florida, USA
Claude Le Tallec, ONERA, France
Jean-Marc Moschetta, SUPAERO, France (event coordinator)
Sergey Shkarayev, University of Arizona, USA
Wei Shyy, University of Michigan, USA
Krzysztof Sibilski, Poland Air Force Institute of Technology, Poland
Surya Surampudi, European Office of Aerospace Research & Development, UK
Evgeny Sokolov, Central R&D Institute of Robotics, Russia
Peter Vörsmann, University of Braunschweig, Germany
Tarek Hamel, I3S UNSA-CNRS, France

Registration fees (including banquet and CD-Rom)

Full registration fees	450 euros
Early bird (before July 2, 2007)	350 euros
Students	150 euros
Exhibitors	700 euros
Extra tickets for banquet only	50 euros
Optional visit (Airbus, Albi)	30 euros

Sponsors



Local Organizing Committee



MAV07

3rd US-European Competition and Workshop on MAV Systems
& European Micro Air Vehicle Conference and Flight Competition 2007

Toulouse, France, September 18-21, 2007



Photos : Ville de Toulouse. Patrice Nin - Copyright Airbus - computer graphic by Fixion

www.mav07.org

Call for papers

Call for competitors

The 3rd US-European Competition and Workshop on Micro Air Vehicle Systems and the 7th European Micro Air vehicle Conference and Flight Competition will be jointly held in Toulouse, France in September 2007. The twin events are designed to foster MAV systems key technologies and to identify what state-of-the-art technologies are needed to further enhance the performance of today's MAV systems. The event is unclassified and will consist of a conference and a flight competition. It is open to institutions and people from all countries.

Conference

The objective of the conference is to provide an effective and established forum for discussion and dissemination of original and recent advances in MAV technology. The conference program will consist of technical paper presentations, keynote lectures and an MAV static display exhibition including a poster session.

Submission of papers that address novel, challenging and innovative ideas, concepts or systems, reports on real use cases with concrete and quantitative results are particularly encouraged. Suggested topics include, but are not limited to, the following areas as they relate to MAVs:

- Low-Reynolds number unsteady aerodynamics
- vision-based sensing and bio-inspired actuation
- flow physics of flapping flight
- coordinated flight of MAVs
- morphing MAV configurations
- integrated GPS/IMU strategy for MAVs
- micro-energy systems and micro-thrusters
- multi-disciplinary optimization of MAVs
- autonomous collision avoidance
- integrated obstacle-avoidance technologies
- gyro-stabilized micro-cameras and image processing
- MAV prototyping and flight testing
- System architecture for MAV operation.

Deadlines

Abstract submission	April 16, 2007
Notification of acceptance	June 11, 2007
Full papers submission	September 3, 2007

Flight competition

Two challenging missions will be open to MAVs of which the maximum dimension is 500 mm and maximum weight is 500 grams.

The **indoor flight session** will consist of conducting a spy mission by flying a MAV into a 3.6-meter square room through a 1-meter square window and identify two targets only visible from inside, one located on a table and one posted on a wall. A coat-hanger will be randomly placed in the room to test the obstacle avoidance capability. The operator of the MAV system will have to stay within the launch zone at 10 meters outside the room.

The **outdoor flight session** will consist of flying an MAV over two separate 1.2x1.5-meter placards within a 1 kilometer radius and identify them. A third placard to be identified will be accurately located within a given area. A circular platform of 1.2-meter diameter will be placed at 1.5m from the ground to demonstrate vertical take-off and landing capabilities of rotorcraft MAVs. Finally, the MAV will have to fly through an urban canyon made of two balloon arches before landing in a predefined zone.

Technology Demonstrations open to mini-UAVs under 1 meter in span and length and 2 kilograms in total mass will allow to demonstrate novel, cutting-edge technologies as applied to indoor and outdoor MAVs. An MAV record-breaking contest will be open to competing teams who are willing to ratify a specific achievement relevant to MAV technologies.

Competing teams are invited to provide a technical paper which describes the rationale behind their design choices. A post-flight experience session will allow each team to briefly give an account of their flight. A limited number of grants partially covering travel expenses may be made available during the application process upon request.

Deadlines

Abstract for competitors	April 16, 2007
Sponsorship application	April 16, 2007
MAV record-breaking proposal	April 16, 2007
Registration for competitors and tech demos	July 2, 2007