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**The Vertical Flight Society Announces the Winners of the
3rd Annual Design-Build-Vertical Flight Student Competition**

Auburn University Wins Top Honors in eVTOL Drone Competition

Fairfax, Virginia — The Vertical Flight Society today announces the winners of its third annual Design-Build-Vertical Flight (DBVF) Student Competition. **Auburn University** took first place, **University of Maryland** took second and **McGill University** took third:

<u>Place</u>	<u>University</u>	<u>Location</u>	<u>Team</u>	<u>Cash Prize</u>
1 st	Auburn University	Auburn, Alabama, USA	Vehicle Systems, Dynamics & Design Laboratory (VSDDL)	\$2,000
2 nd	University of Maryland	College Park, Maryland, USA	Autonomous Micro Air Vehicle (AMAV)	\$1,000
3 rd	McGill University	Montréal, Québec, Canada	McGill Vertical Flight Society (MVF)	\$500

The annual remote-control, electric-powered vertical takeoff and landing (VTOL) DBVF competition seeks to encourage student interest in unmanned aircraft technology, and small air vehicle design and fabrication. The competition is designed to develop hands-on skills and familiarization with electric VTOL and advanced air mobility (AAM) technology at the university student level, helping to prepare the next generation of engineers and leaders to push the limits of this exciting technology into the future. VFS awarded a total of \$5,000 in cash prizes to schools in the competition this year.

The 2022-2023 request for proposal (RFP) published in August 2022 challenged the teams to build an electric VTOL aircraft weighing no more than 20 lb (9 kg) and capable of carrying a payload of at least 2 lb (0.9 kg), with sufficient endurance to complete the demanding competition requirements. In addition, the aircraft had to be capable of flying manually and autonomously. The RFP and other information are available at www.vtol.org/fly.

Eleven universities from across North America and Europe entered the competition in September and were approved to compete based on the sufficiency of their plans and technical approach. All 11 teams also submitted Preliminary Design Reports in December, and the teams with the top five ranked reports were awarded \$300 each to help offset costs and competition travel expenses. Those teams were from Cooper Union, Delft University of Technology, University of Cincinnati, University of Maryland and University of Michigan.

Seven schools progressed enough to submit a Final Technical Report submission on May 8: Auburn University, Cooper Union, McGill University, University of Maryland, University of Michigan, Vaughn College of Aeronautics & Technology and University of Wisconsin-Madison.

Five schools made it to the final round. In addition to the three winning teams, students from Michigan and Vaughn also attended the DBVF competition flyoff, and University of Michigan received an honorable mention. Notably, Auburn University completed all aspects of the demanding competition, including completing circuits under both manual control and fully autonomous flight.

This year's competition expanded the overall course size to increase the challenge of combining VTOL requirements with efficient, high-speed forward flight. The flyoff was hosted this year by SURVICE Engineering's Applied Technology Operation (ATO), held at the Harford County Airport in Churchville, Maryland, on June 6–8.

"The long-range endurance course in this year's event pushed teams to consider out of the box UAS configurations," said Dr. Jason K. Cornelius of NASA Ames Research Center, who volunteers as the VFS DBVF Program Director. "Combining challenging tailsitter and lift + cruise configurations with high on-site winds presented a truly real-world test environment for the students. I was greatly impressed by the ingenuity and resilience of the students and am looking forward to the continued growth of the event."

"Every one of the teams had to overcome formidable obstacles in this competition, including workload, manufacturing challenges and numerous crashes," said VFS Director of Strategy Mike Hirschberg. "All the students learned a tremendous amount, which is the primary goal of the DBVF competition."

The Society is very grateful for the support of SURVICE Engineering and the donation of its facilities, airspace control and flight test expertise over the past year. Fittingly, SURVICE and its partner Malloy Aeronautics won a contract in April with the Navy and Marine Corps Small Tactical Uncrewed Aircraft Systems (UAS) program office (PMA-263) to produce nearly 200 Tactical Resupply Vehicle (TRV) aircraft, the first production cargo UAS for the military.

This year, Moog Aircraft Group was also a sponsor and provided important support to the competition. Many VFS members from industry and government volunteered to plan, execute and judge the competition. Volunteers from the nearby Army Research Laboratory (ARL) in particular provided important assistance.

The Vertical Flight Society encourages universities from around the world to form teams and take part in this exciting and challenging competition next year. Preparations are already underway, with the flight-testing portion of the competition again planned for Churchville, Maryland, next spring. Details of the competition will be announced this summer.

The Vertical Flight Society is the world's premier vertical flight technical society. Since it was founded as the American Helicopter Society in 1943, the Society has been a major force in the advancement of vertical flight. VFS is the global resource for information on vertical flight technology. For 80 years, it has provided global leadership for scientific, technical, educational and legislative initiatives that advance the state of the art of vertical flight.

The Vertical Flight Society

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