



Canada's National Student Unmanned Aerial Systems (UAS) Phase 1 Design Paper Winners 2020 & 2021

The 12th **Unmanned Systems Canada / Systèmes Télécommandés Canada (USC-STC)** Student UAS Competition launched in September 2019 with 15 teams submitting design papers tackling the scenario, which for the first time, included the option of employing an unmanned ground vehicle (UGV) to work with the drone. Students were tasked to design and operate their unmanned vehicles, to move medical supplies from a clinic to remote communities. Rapid response times and the ability to travel routes and distances that are not conveniently accessed by conventional methods, make Unmanned Aircraft Systems (UAS) a promising medical delivery system.

The Design Papers submitted in January 2020, detailed the proposed UAS/UGV design, selection of options, task methodologies, risk assessment and testing, and project management aspects. A team of seven judges representing a cross section of the UAS sector, were impressed by the quality of the reports, the inclusion of new technologies into the systems and the way the solutions were presented.

Unmanned Systems Canada- Systèmes Télécommandés Canada is therefore pleased to announce the top three design papers:

Phase 1 - Design Paper Competition 2020

- 1st place: Carleton University - Blackbird
- 2nd place: École de technologie supérieure - DronoLab
- 3rd place: Université de Sherbrooke – VAMUdeS

Unfortunately due to COVID-19, Phase 2, the flying component slated for Southport MB, was postponed. With teams keen to learn from their innovation and hard work, the competition resumed in September 2020. The scenario remained the same, rather appropriate during a real medical emergency. The one new team submitted Phase 1 A, a design paper. With solid design papers already judged, returning teams wrote a Phase 1 B - a performance report consisting of a more in-depth written proposal describing the technical details of their proposed competition design, as well as reflections on the transition from the 2020 to the 2021 Competition, and a video submission. The judges took on submissions from 10 universities.

Unmanned Systems Canada- Systèmes Télécommandés Canada is therefore pleased to announce the top three performance papers:

Phase 1B - Performance Paper Competition 2021

- 1st place: University of Toronto – UTAT UAS
- 2nd place: University of British Columbia – UBC UAS
- 3rd place: École de technologie supérieure - DronoLab

Once again COVID-19 is preventing travel to Southport MB, for the flying phase. Innovation between teams and the committee resulted in the competition going virtual! It launches April 30 over Zoom with all teams making their “company pitch”, sponsor introductions and networking time between the two. Between 1 and 28 May, each team informs judges 24 hours before they will conduct the flight challenge from their home location. The complete flights will be live steamed to allow other teams and judges to follow the action. Judges receive a summary video showing only the task action and a report on the mission 24 hours later. Awards and special prizes are presented May 30 with all teams, sponsors and judges zooming in.

Sponsorship Opportunities

Thanks to the enthusiasm and support from past sponsors, each year the bar is raised to attract first class teams with innovative ideas. This world class event provides opportunities for the best and brightest to display leadership, real world problem solving and teamwork all in a stressful competitive environment; a real-life job interview. Results have paid off as several UAS competitors have been hired by a sponsoring company. When tested on the international stage, our Canadian teams not only take-home various awards, but consistently place at or near the top. Canada is on the UAS Podium! Sponsors and students will have the opportunity to connect during the competition. Resumes and contact information will be made available. To become involved as a sponsor, and invest in these talented students, the future of the Canadian UAS sector, check out the sponsorship brochure [Sponsorship Brochure](#) and contact competition@unmannedsystems.ca.

2021 Teams

Carleton University - Blackbird

École de technologie supérieure - Dronolab

Ryerson University - RUAV

University of Alberta - UARG

University of British Columbia - UBC UAS

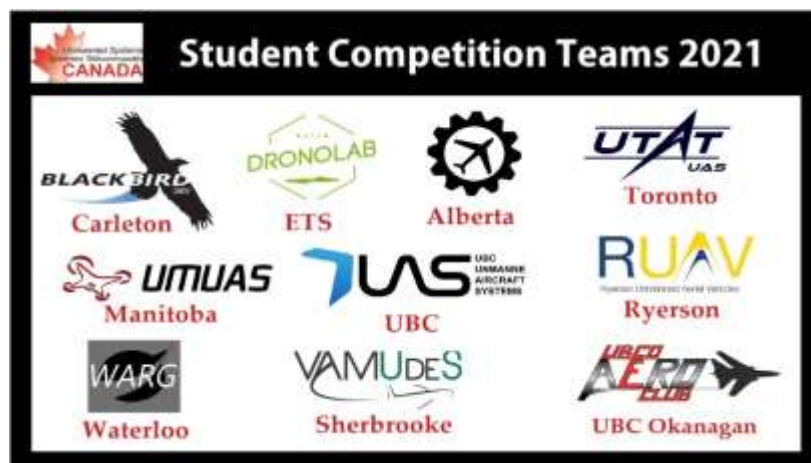
UBC Okanagan – UBCO Aero

University of Manitoba - UMUAS

Université de Sherbrooke - VAMUdeS

University of Toronto – UTAT UAS

University of Waterloo - WARG



Stay tuned to the website for all the details

<https://www.unmannedsystems.ca/home/students/student-competition-details/>

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