



16th Annual AUVSI Student UAS Competition

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2018 AUVSI UAS Student Competition



2018 AUVSI UAS Student Competition



That is ME!!

2018 Firsts

- 69 (59 in 2017) Teams Registered, (55) Papers, (47) FRRs, 51 teams (42) to come and fly, 48 (40) attempts, 47 (38) Got Airborne
- 63 Journals, 51 FRRs, 48 Flight Attempts
 - 47 Big Fat checks to the teams
(and one, real, real, big ole check to ME)
- 15 “Crashes”
 - Several flew after the crash
 - Zero Tree Strikes!
- No Time Out in the pits
 - 27 teams took Time Out
- Simple, Straightforward Rules!
- Averaged 2 teams/hr in mission comp
- Expanded, Outstanding Interop with mission displays
- Lots of First Time ‘Noob’ Judges

Some Suggestions for the future

- Read the rules, Follow the rules
 - Display altitude in FEET...Not meters, not yards, not “something” divided by 3
 - I’ve been trying to learn the metric system for about 46 years.....It’s not gonna work for me.
- Test early and often, and in the pits and even on the flight line
- If everything worked great at home, be prepared for failures at the competition...Meet Mr Murphy
- Background Music is NOT, I say NOT required/Desired for the FRR
- Code at home, not on the flight line...that is right, new code on flight line=airplane in the dirt
- Have Checklists....and use them
 - Logistics, safety, spare parts
- Bring the judges a gift—Yeah, thank you Alberta! (I gotcha for next year!!...but hey, not to complain, next time, consider a bottle of Scotch)!!

Team Quotes

“be careful! Press the safety switch and then step away” –

student

jumps back

props start

St Louis

“I wonder if we play bird mating calls if it will attract those eagles over there.”

“Uhhhh... that’s not my field.”

Hawaii

The music on the Hawaii FRR was better this year....not good, but not as bad as last year.

Team Quotes

“Breathe.” – judge to near hyperventilating team captain

“I’ll do that tomorrow.” ---Hyperventilating team captain

Rashtreeya

“They’re turning their hexacopter into a quadcopter.”

“That’s a first.”

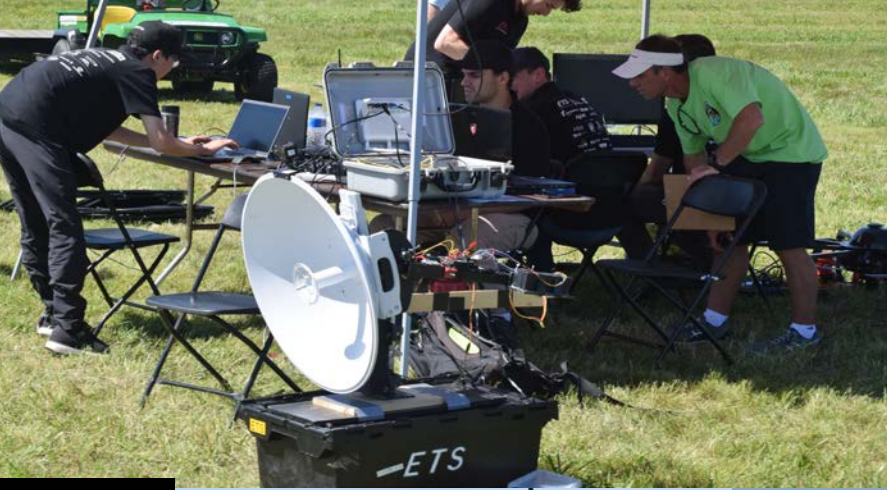
“On the runway...”

Croatia

“Bonus points for Croatia for bringing back a soil sample on the nose of their aircraft. It was 2 or 3 inches into the ground.”

On them getting back up in the air after planting their nose 2-3 in in the ground.

“Don’t mess with the Croatians!”















OZARK TRAIL
OUTDOOR EQUIPMENT

3





Thank You Judges

(the Real heart of the competition)

- Troy Abbott
- Marc Schon
- Steve Krachinovich
- Josh Dittmar
- Cheryl Kinchen
- Phil Tischler—Interoperability Master
- Veronique Nedeau—Interop and quotes
- Kim McEligot—Score Daddy!

- And all the rest of our committed volunteers

Has Anyone Seen the Competition Director?



And Thanks to the people that really put in their BLOOD, sweat, and tears





AUVSI SUAS 2018



2018 SUAS Results



Now...Here is why you are all Here

Total Prize money to the teams this year!!!

\$70,700 paid out to the teams

(Last year was about \$62K)

Cyber Security Award 2018



The Universite de Sherbrooke
\$500

"GodCed", "AGuilbault"

Dawn Jaeger Tenacity Award



Faculty of Electrical Engineering, Mechanical Engineering, and Naval
Architecture

\$1000*

*Less \$999 for the hole they left in our field!
Nah, you get it all

Dr. Arthur Reyes Safety Award



Embry-Riddle Aeronautical University
\$1000

Just Joe Sportsmanship Award



University of Toronto
\$1000

Best High School Award



Flint Hill School

Other Money



- Positive Points in Autonomy
- Obstacle Avoidance
- Air Delivery
- Object Detection, Localization, and Classification
- Flight
- Top 6 in Mission, FRR, and Journal

2017 AUVSI Air Delivery Results



School	Distance (FT)
Yildiz Technical University	3.83
Calvert Hall College High School	4.08
University of Texas at Austin	5.42
Ecole de Technologie Superieure	6.92
Istanbul Technical University	8.08
Clark College	9.08
Flint Hill School	12.08
Mukesh Patel School of Technology Management and Engineering (MPSTME)	13.67
Virginia Tech	15.1
Universite de Sherbrooke	17.16
Saint Louis University	21.33
University of Hawaii at Manoa	27.92
North Carolina State University	32
University of Pennsylvania	64.92
Cornell University	69.33
University of Maryland College Park	70.83
California State Polytechnic University, Pomona	128.25
Ramaiah Institute of Technology	129.92

10th Place



- 32nd place in Journal
 - 30th place in FRR
 - 10th place in Mission
-
- M.S. Ramiah Institute of Technology \$1450

9th Place



- 25th place in Journal
- 20th place in FRR
- 11th place in Mission

- Brigham Young University \$1550

8th Place



- 26th place in Journal
 - 21st place in FRR
 - 5th place in Mission
-
- Yildiz Technical University, \$1850

7th Place



- 18th place in Journal
 - 12th place in FRR
 - 9th place in Mission
-
- Istanbul Technical University \$1150

6th Place



- 6th place in Journal
 - 15th place in FRR
 - 7th place in Mission
-
- University of Texas at Austin, \$2350

5th Place



- 20th place in Journal
 - 4th place in FRR
 - 8th place in Mission
-
- Mukesh Patel School of TM&E, NMIMS University, \$3050

4th Place



- 1ST place in Journal!!!!
- 1ST place in FRR!!!!
- 4th place in Mission

- Cornell University \$5950

3rd Place



- 7th place in Journal
 - 3rd place in FRR
 - 3rd place in Mission
-
- Virginia Polytechnic Institute and State University \$5400

2nd Place



- 31st place in Journal
 - 7th place in FRR
 - 2nd place in Mission
-
- Flint Hill School \$6450

1st Place



- 5th place in Journal
 - 2nd place in FRR
 - 1st place in Mission
-
- Universite de Sherbrooke \$9500



2018 AUVSI Student UAS Competition

Overall Rank	University	Mission Rank	FRR Rank	Journal Rank	Prize Money
1	Universite de Sherbrooke	1	2	5	9500
2	Flint Hill School	2	7	31	6450
3	Virginia Polytechnic Institute and State University	3	3	7	5400
4	Cornell University	4	1	1	5950
5	Mukesh Patel School of TM&E, NMIMS University	8	4	20	3050
6	The University of Texas at Austin	7	15	6	2350
7	Istanbul Technical University	9	12	18	1150
8	Yildiz Technical University	5	21	26	1850
9	Brigham Young University	11	20	25	1150
10	M.S. Ramaiah Institute of Technology	10	30	32	1450
11	University of Maryland College Park	13	34	10	1150
12	University of Toronto	14	33	4	2550
13	Technion Israel Institute of Technology	17	10	3	1650
14	Saint Louis University	15	13	30	850
15	Ecole de Technologie Superieure (ETS)	18	5	24	1450
16	Calvert Hall College High School	12	35	55	1150
17	Norfolk State University	6	40	62	1150
18	Cal Poly Pomona	19	16	22	1150
19	University of Pennsylvania	21	25	17	850
20	Delhi Technological University	29	14	2	1600
21	North Carolina State University	25	22	21	850
22	Stanford University	28	19	15	850
23	Military Technical College	24	24	36	850
24	University of California, Los Angeles	27	27	27	850
25	University of Alberta	31	8	29	550
26	Embry-Riddle Aeronautical University	22	38	41	1550
27	Rutgers University	30	26	23	850
28	SRM University	37	11	8	550
29	Clark College	26	42	38	850
30	Christopher Newport University	16	48	44	850
31	Indraprastha Institute Of Information Technology	35	18	13	850
32	University of Hawaii	23	43	49	1150

2018 AUVSI Student UAS Competition

Overall Rank	University	Mission Rank	FRR Rank	Journal Rank	Prize Money
33	of Electrical Engineering, Mechanical Engineering and Naval Archi	34	31	45	1550
34	Selcuk University	20	51	58	850
35	McGill University	41	6	11	450
36	Purdue University	32	47	40	550
37	Monroe Community College	40	29	33	550
38	University of California, San Diego	41	17	12	850
39	Anadolu University	41	9	35	250
40	University of California, Irvine	41	28	16	0
41	Polish Air Force Academy	33	45	61	550
42	Palos Verdes High School	39	37	59	550
43	Vellore Institute of Technology	41	36	14	250
44	Concordia University	36	44	63	550
45	Kocaeli University	41	23	48	0
46	Rowan University	41	32	52	0
47	U.S. Naval Academy	38	50	34	250
48	Indian Institute of Technology, Bombay	41	41	39	0
49	Mississippi State University	41	46	9	550
50	Rashtreeya Vidyalya College of Engineering	41	39	51	250
51	University of Michigan-Ann Arbor	52	52	19	0
52	University of Rome, La Sapienza	41	49	56	250
53	Munich University of Applied Sciences	52	52	28	0
54	University of California, Riverside	52	52	37	0
55	University of Arizona	52	52	42	0
56	University of British Columbia	52	52	43	0
57	Chulalongkorn University	52	52	46	0
58	Michigan State University	52	52	47	0
59	Pennsylvania State University	52	52	50	0
60	Harvard University	52	52	53	0
61	Institute of Technology, Nirma University	52	52	54	0
62	Lahore Univeristy of Management Sciences	52	52	57	0
63	Sahyadri College of Engineering & Management	52	52	60	0



Thank You for your participation