



2013 Student UAS Competition Awards Banquet

22 June 2013

Goods and Other
Ranking
Prizes



<http://www.auvsi.org/FOUNDATION/Competitions/SUAS>



General Team Stats

- >45 Schools Initiated Registration Process – Many Did Not Meet Requirements
- 35 Schools Register and Competed; 8 International Schools and 5 High Schools
- 4 Vehicles Powered by Fueled Engines
- 5 Vehicles In Rotary Wing Category
- 35 Technical Journal Papers Scored
- 32 Teams Competed in Orals and Flight
- 31 Teams Took off and Flew
- 2 Catapult Launchers
- 10 Autonomous Takeoffs
- 7 Autonomous Landings
- 21 Autonomous Navigations
- 1 Off-Axis Target
- 10 Target Acquisition
- 1 Target Location Within 50 Ft.
- 1 Pop-Up Emergent Target (Rescue Randina)
- 6 SRIC message (Simulate Remote Information Center)
- 5 Crashes
- Grand Total of Prize Money Awarded \$51,600

Humorous

- Calvert Hall HS – Most colorful shirts’
- Port-a-Potty Truck Timing – Judges Lunchtime
- Medical Team Responds to Call for Band aid
- Deer Grazing in Fields are Not the Emergent Target
- Announcer calling “Team is on the Ground” after Crash
- Acrobatic Award goes to Illinois Tech
- Tuct Tape Award goes to Sherbrooke
- Amorous Air Vehicle Award goes to ERUA Blackbird
- Will of the Crowd Lifted Spain’s Gyro Copter to Takeoff

QUOTES OVERHEARD BY JUDGES:

- “What do I do Now?” “Push a Button!”
- “Is it Going in the Right Direction?”, and even “We Have Images?” (Surprised)
- “If you can’t fly it, fry it!”
- After Picking off Chunks of Grass from the “If they Can’t Fly It, At Least They Can Cut Grass”
- “Are We Heading for the Way Point?” “ I think so!”
- Q: “How Many Targets Do You Expect to Locate?” A: “We’ll Find All of Them!”
- Roanoke HS’s USB Memory Stick Data Read By Judge; “☹ It’s a sad day!”

Goods

- More Teams Competing – More Qualified Designs
- More Teams Calling into University Day/Asking Qs
- Quality of Experienced Teams Continues to Improve
- Required Proof-of-Flight Video Helped Prep Teams
- Vehicle Workmanship Has Greatly Improved
- Very Impressive Ground Control Stations
- Autonomous Navigation Become Broadly Applied
- Autonomous Imagery and Target Recognition Good
- Autonomous Take-off/Landings Still Not Well Established
- More RF Experience Evident – But Still Not Enough

Others

- Teams Still Haven't Learned about Sunshine and LCDs
- RF Transmitter/EMI Problems Are Best Worked on at Hotel
- Safety Pilots Should Never Take Eyes of Vehicle – Especially to Look Down to Trim
- Several Vehicles Made Judges/Teams Scatter During Takeoff
- FOD Recovery Team Almost Hit When Other Team Crashes
- Open Toes Shoes and Flip Flops Not Recommended When Chasing Vehicles
- Camera Man Filming the Safety Pilot – while Air Vehicle Crashed Nearby

Next Year

- Provide Inputs from Experience During This Competition
- Make Recommendations for Changes to Rules, Facilities, etc.
- Rules Will Change Again – Expect More Challenges, Perhaps;
 - Up to 3 Team’s Operating RF Transmitters Simultaneously
 - Using SRIC Message to Coordinate Some Team Activity
 - Delivering Physical Items to a Target
 - Controlling More than 1 Vehicle (i.e. swarming)
 - Thermal Imaging
 - Etc., Etc.
- University Day – Call in – It’s FREE (BEFORE Registration)
- Plan for Limited Registration Window – Including Payment

2013 SUAS Team Ranking and Prizes

- 20-Page Journal Technical Papers
- Flight Readiness Review Oral Presentations
- Flight/Mission Demonstration
- Overall Team Ranking

Lingaya

- Overall: 35th
 - Journal Paper: 33rd

Arizona

- Overall: 34th
 - Journal Paper: 27th

Drexel

- Overall: 33rd
 - Journal Paper: 12th

Synergy HS

- Overall: 32nd
 - Journal Paper: 35th
 - Oral Presentation: 32nd
 - Mission Performance: 23rd
- Prize Barrels: 1
 - Flight
- Prize Award: \$400

Missouri

- Overall: 31st
 - Journal Paper: 34th
 - Oral Presentation: 20th
 - Mission Performance: 30th
- Prize Barrels: 1
 - Flight
- Prize Award: \$400

Illinois Inst. of Technology

- Overall: 30th
 - Journal Paper: 30th
 - Oral Presentation: 31st
 - Mission Performance: 28th
- Prize Barrels: 1
 - Flight
- Prize Award: \$400

Istanbul Tek. Univ.

- Overall: 29th
 - Journal Paper: 21st
 - Oral Presentation: 27th
 - Mission Performance: 32nd
- Awards: Seafarer Honorable Mention
- Prize Award: \$300

Escuela TSI Navales

- Overall: 28th
 - Journal Paper: 20th
 - Oral Presentation: 25th
 - Mission Performance: 31st
- Prize Barrels: 1
 - Flight
- Prize Award: \$400

Palo Verde HS

- Overall: 27th
 - Journal Paper: 29th
 - Oral Presentation: 30th
 - Mission Performance: 24th
- Prize Barrels: 2
 - Flight, Autonomous Landing
- Prize Award: \$700

Great Mills HS

- Overall: 26th
 - Journal Paper: 31st
 - Oral Presentation: 23rd
 - Mission Performance: 27th
- Prize Barrels: 1
 - Flight
- Prize Award: \$400

Roanoke Valley Gov. HS

- Overall: 25th
 - Journal Paper: 32nd
 - Oral Presentation: 28th
 - Mission Performance: 18th
- Prize Barrels: 1
 - Flight
- Prize Award: \$400

Simon Fraser Univ.

- Overall: 24th
 - Journal Paper: 28th
 - Oral Presentation: 24th
 - Mission Performance: 22nd
- Prize Barrels: 2
 - Flight, Autonomous Navigation and Search
- Prize Award: \$700

Alberta

- Overall: 23rd
 - Journal Paper: 25th
 - Oral Presentation: 15th
 - Mission Performance: 26th
- Prize Barrels: 1
 - Flight
- Prize Award: \$400

Calvert Hall

- Overall: 22nd
 - Journal Paper: 26th
 - Oral Presentation: 26th
 - Mission Performance: 21st
- Awards: Best High School
- Prize Barrels: 2
 - Flight, Autonomous Navigation and Search
- Prize Award: \$1,200

Cal State – Fullerton

- Overall: 21st
 - Journal Paper: 17th
 - Oral Presentation: 11th
 - Mission Performance: 29th
- Prize Barrels: 1
 - Flight
- Prize Award: \$400

Cal Poly - Pomona

- Overall: 20th
 - Journal Paper: 18th
 - Oral Presentation: 29th
 - Mission Performance: 17th
- Prize Barrels: 2
 - Flight, Autonomous Navigation and Search
- Prize Award: \$700

Utah State

- Overall: 19th
 - Journal Paper: 16th
 - Oral Presentation: 8th
 - Mission Performance: 25th
- Prize Barrels: 3
 - Flight, Autonomous Take-off, Autonomous Navigation and Search
- Prize Award: \$1,000

ERAU – UAS Tech

- Overall: 18th
 - Journal Paper: 23rd
 - Oral Presentation: 22nd
 - Mission Performance: 12th
- Prize Barrels: 4
 - Flight, Autonomous Take-off, Autonomous Navigation and Search, Autonomous Landing
- Prize Award: \$1,300

UC San Diego

- Overall: 17th
 - Journal Paper: 14th
 - Oral Presentation: 17th
 - Mission Performance: 19th
- Prize Barrels: 1
 - Flight
- Prize Award: \$400

University Texas - Arlington

- Overall: 16th
 - Journal Paper: 22nd
 - Oral Presentation: 19th
 - Mission Performance: 10th
- Prize Barrels: 2
 - Flight, Autonomous Navigation and Search
- Prize Award: \$700

ERAU - Blackbird

- Overall: 15th
 - Journal Paper: 24th
 - Oral Presentation: 9th
 - Mission Performance: 14th
- Prize Barrels: 4
 - Flight, Autonomous Take-off, Autonomous Navigation and Search, Autonomous Landing
- Prize Award: \$1,300

Mississippi State

- Overall: 14th
 - Journal Paper: 7th
 - Oral Presentation: 16th
 - Mission Performance: 16th
- Prize Barrels: 2
 - Flight, Autonomous Navigation and Search
- Prize Award: \$1,000

Virginia Commonwealth

- Overall: 13th
 - Journal Paper: 19th
 - Oral Presentation: 7th
 - Mission Performance: 13th
- Prize Barrels: 2
 - Flight, Autonomous Navigation and Search
- Prize Award: \$900

Toronto

- Overall: 12th
 - Journal Paper: 13th
 - Oral Presentation: 1st
 - Mission Performance: 20th
- Prize Barrels: 3
 - Flight, Autonomous Navigation and Search, Autonomous Landing
- Prize Award: \$2,000

Rutgers

- Overall: 11th
 - Journal Paper: 9th
 - Oral Presentation: 14th
 - Mission Performance: 11th
- Prize Barrels: 2
 - Flight, Autonomous Navigation and Search
- Prize Award: \$900

MS Rahmaiah IT

- Overall: 10th
 - Journal Paper: 11th
 - Oral Presentation: 21st
 - Mission Performance: 5th
- Prize Barrels: 7
 - Flight, Autonomous Take-off, Autonomous Navigation and Search, Autonomous Target Detection, Autonomous Classification, Autonomous Identification, SRIC
- Prize Award: \$2,600

Cal State Northridge

- Overall: 9th
 - Journal Paper: 3rd
 - Oral Presentation: 10th
 - Mission Performance: 14th
- Prize Barrels: 4
 - Flight, Autonomous Take-off, Autonomous Navigation and Search, SRIC
- Prize Award: \$2,000

Kansas State - Salina

- Overall: 8th
 - Journal Paper: 15th
 - Oral Presentation: 5th
 - Mission Performance: 7th
- Awards: Rotary Wing and Safety
- Prize Barrels: 3
 - Flight, Autonomous Take-off, Autonomous Navigation and Search
- Prize Award: \$3,800

Sherbrooke

- Overall: 7th
 - Journal Paper: 6th
 - Oral Presentation: 6th
 - Mission Performance: 8th
- Prize Barrels: 4
 - Flight, Autonomous Take-off, Autonomous Navigation and Search, SRIC
- Prize Award: \$1,950

Delhi Tech. Univ.

- Overall: 6th
 - Journal Paper: 5th
 - Oral Presentation: 2nd
 - Mission Performance: 9th
- Prize Barrels: 5
 - Flight, Autonomous Navigation and Search, Autonomous Target Detection, Autonomous Classification, Autonomous Identification
- Prize Award: \$2,700

ERAU Awesome

- Overall: 5th
 - Journal Paper: 10th
 - Oral Presentation: 3rd
 - Mission Performance: 6th
- Prize Barrels: 5
 - Flight, Autonomous Take-off, Autonomous Navigation and Search, Autonomous Landing, Target Location within 50ft
- Prize Award: \$2,800

ERAU – An Drone

- Overall: 4th
 - Journal Paper: 4th
 - Oral Presentation: 12th
 - Mission Performance: 3rd
- Prize Barrels: 4
 - Flight, Autonomous Take-off, Autonomous Navigation and Search, Autonomous Landing
- Prize Award: \$3,100

Kansas State University

- Overall: 3rd
 - Journal Paper: 8th
 - Oral Presentation: 4th
 - Mission Performance: 4th
- Prize Barrels: 5
 - Flight, Autonomous Navigation and Search, Autonomous Landing, Pop-Up Target, SRIC
- Prize Award: \$3,950

North Carolina State

- Overall: 2nd
 - Journal Paper: 2nd
 - Oral Presentation: 13th
 - Mission Performance: 2nd
- Prize Barrels: 4
 - Flight, Autonomous Navigation and Search, Target Location within 50ft, SRIC
- Prize Award: \$4,950

Cornell

- Overall: 1st
 - Journal Paper: 1st
 - Oral Presentation: 18th
 - Mission Performance: 1st
- Prize Barrels: 4
 - Flight, Autonomous Navigation and Search, Off-Axis Target, SRIC
- Prize Award: \$7,450

TOTAL PRIZE MONEY = \$51,600

Team #	Team Name	Total	Journal	Oral	Mission	Overall	Prizes	Awards	Prize Barrels
20	Lingaya	\$ -	33			35	0		
02	Arizona	\$ -	27			34	0		
08	Drexel	\$ -	12			33	0		
30	Synergy	\$ 400.00	35	32	23	32	1		Toff
21	Missouri	\$ 400.00	34	20	30	31	1		Toff
16	IIT	\$ 400.00	30	31	28	30	1		Toff
17	ITU	\$ 300.00	21	27	32	29	1	Seafarer Honorable	
14	ETSI Navales	\$ 400.00	20	25	31	28	1		Toff
25	PVHS	\$ 700.00	29	30	24	27	2		Toff, Auto Land
15	GMHS	\$ 400.00	31	23	27	26	1		Toff
27	RVGS	\$ 400.00	32	28	18	25	1		Toff
28	SFU	\$ 700.00	28	24	22	24	2		Toff, Auto Nav & Search
01	Alberta	\$ 400.00	25	15	26	23	1		Toff
04	Calvert Hall	\$ 1,200.00	26	26	21	22	3	Best HS	Toff, Auto Nav & Search
06	CSUF	\$ 400.00	17	11	29	21	1		Toff
03	CalPoly-Pomona	\$ 700.00	18	29	17	20	2		Toff, Auto Nav & Search
33	USU	\$ 1,000.00	16	8	25	19	3		Toff, Auto Takeoff, Auto Nav & Search
13	ERAU Tech	\$ 1,300.00	23	22	12	18	4		Toff, Auto Takeoff, Auto Nav & Search, Auto Land
32	UCSD	\$ 400.00	14	17	19	17	1		Toff
34	UTA	\$ 700.00	22	19	10	16	2		Toff, Auto Nav & Search
12	ERAU Blackbird	\$ 1,300.00	24	9	15	15	4		Toff, Auto Takeoff, Auto Nav & Search, Auto Land
23	MSU	\$ 1,000.00	7	16	16	14	2		Toff, Auto Nav & Search
35	VCU	\$ 900.00	19	7	13	13	2		Toff, Auto Nav & Search
31	Toronto	\$ 2,000.00	13	1	20	12	3		Toff, Auto Nav & Search, Auto Land
26	Rutgers	\$ 900.00	9	14	11	11	2		Toff, Auto Nav & Search
22	MSRIT	\$ 2,600.00	11	21	5	10	7		Toff, Auto Takeoff, Auto Nav, Auto Detect, Auto Classify, Auto ID, SRIC
07	CSUN	\$ 2,000.00	3	10	14	9	4		Toff, Auto Takeoff, Auto Nav & Search, SRIC
19	K-State Salina	\$ 3,800.00	15	5	7	8	5	RW & Safety	Toff, Auto Takeoff, Auto Nav & Search, Pop Up Target
29	Sherbrooke	\$ 1,950.00	6	6	8	7	4		Toff, Auto Takeoff, Auto Nav & Search, SRIC
09	DTU	\$ 2,700.00	5	2	9	6	5		Toff, Auto Nav, Auto Detect, Auto Classify, Auto ID
11	ERAU Awesome	\$ 2,800.00	10	3	6	5	5		Toff, Auto Takeoff, Auto Nav & Search, Auto Land, Target Location within 50ft
10	ERAU AnDrone	\$ 3,100.00	4	12	3	4	4		Toff, Auto Takeoff, Auto Nav & Search, Auto Land
18	K-State	\$ 3,950.00	8	4	4	3	5		Toff, Auto Nav & Search, Auto Land, Pop Up Target, SRIC
24	NC State	\$ 4,950.00	2	13	2	2	4		Toff, Auto Nav & Search, Target within 50ft, SRIC
05	Cornell	\$ 7,450.00	1	18	1	1	4		Toff, Auto Nav & Search, Off Axis Target, SRIC

Total Prize Money **\$ 51,600.00**