ULA and Ball Aerospace Celebrate 10th Anniversary of STEM Program with Student Rocket Launch

Nearly 40 student-built payloads to fly on an intern-built sport rocket on July 14

CENTENNIAL and BOULDER, Colo., July 9, 2018 / PRNewswire -- United Launch Alliance (ULA) and Ball Aerospace will celebrate the 10th anniversary of hands-on STEM education with a rocket launch over southeastern Colorado. Open to the general public, 2018 Student Rocket Launch will be held July 14 at Lake Meredith, Colorado, and marks the culmination of work by students from kindergarten through graduate school.

Since 2008, ULA's summer interns built and launched high-power sport rockets carrying payloads (onboard objects, experiments or instruments that may deploy from the rocket) designed and built by Ball Aerospace interns as part of the Ball Intern Remote Sensing Team (BIRST) program. In 2010, ULA opened the opportunity up to K-12 student teams, and the program has grown substantially. ULA and Ball interns volunteer to participate in the program in addition to their "day jobs" at the aerospace companies.

"ULA started this program because we wanted our interns to have this hands-on opportunity, and we've worked with Ball Aerospace to continue expanding its reach to encompass students from kindergarten through graduate school," said Tory Bruno, ULA president and CEO. "We're always focused on mission success, and in this case we want to inspire the next generation to pursue careers in the space industry and encourage their passion for this cool industry."



This year, ULA's Future Heavy SS rocket – short for "Future Heavy Super Sport" – will launch 36 payloads, with 15 competing to win up to \$5,000 by designing a craft to return to a pre-appointed location near the launch. A payload can be almost anything a team can create within the provided guidelines.

"Ball's BIRST program and the ULA rocket launch offer our interns a unique real-world opportunity to collaborate with mentors to bring a design idea from concept to launch," said Rob Strain, president of Ball Aerospace. "Our Ball interns represent a diverse group of students from 42 universities who are pursuing careers in STEM fields, which are critical to the aerospace industry in the U.S. as well as our local Colorado community."

Ball Aerospace interns recently completed a Design Review for their payloads, presenting their plans to volunteer mentors, executives and the ULA rocket team.

The Ball Aerospace manifested payloads for the 2018 Student Rocket Launch:

- BIRST Unmanned Zip-Zagging Knot-Induced Lake Lander (B.U.Z.Z.K.I.L.L.)
- DinoSOARS
- Epic Payload Intern Contraptions (E.P.I.C.)

K-12 payloads manifested for the 2018 Student Rocket Launch (*denotes a competition payload):

California

- Armenian Engineers and Scientists of America (Burbank, CA): Contra-rotating-coaxial-helicopter*
- DaVinci Innovation Academy (Hawthorne, CA): Discovery 9

Colorado

- Boulder High School (Boulder, CO):
 - Bullet Boat*
 - Orobotics Brothers*
- Eagleview Middle School (Colorado Springs, CO):
 - Mechanical Actuator
 - Pressure/Temperature Monitor
- Girl Scouts of Fox Ridge Middle School (Aurora, CO): Celebration of Explorer 1
- Green Mountain High School (Lakewood, CO): The Gassy Can*
- Lakewood High School (Lakewood, CO):
 - Ad Astra Super Alas Per Arduino*
 - Tardigrades, the heftiest organisms*
- Laredo Middle School (Aurora, CO): Lions01*
- Monarch High School (Lafavette, CO): Droney McDroneface*
- Mountain Vista High School (Highlands Ranch, CO):
 - Plants Under 10 Gs of Force
 - Egg Goes Up to Space
 - Oobleck Rocket Payload
 - The Pill*
- Peak to Peak Charter (Boulder, CO):
 - Heart of the Gold(ish)
 - Walkie-Talkie Challenge
 - ASDS
 - Winner Winner Chicken Dinner*
 - Paraglider Positioning Auto Pilot (PPAP)*
- Ralston Valley High School (Arvada, CO):
 - Gliders Extreme
 - Mr. Flappy*
- Smoky Hill Area Robotics Club (SHARC) (Aurora, CO): MARVIn2
- STEM School Highlands Ranch (Highlands Ranch, CO):
 - Welcome Home
 - Bon Voyage*
- Warren Tech (Lakewood, CO): Habrok*

New Mexico

• Civil Air Patrol – Santa Fe Composite Squadron (Santa Fe, NM): Autonomous Emergency Delivery System*

The 2018 Student Rocket Launch is free and open to the public. In addition to the Future Heavy SS, four other high-power sport rockets will launch. Visit https://www.ulalaunch.com/explore/intern-rockets/student-rocket-next-launch for more information.

United Launch Alliance

With more than a century of combined heritage, United Launch Alliance is the nation's most experienced and reliable launch service provider. ULA has successfully delivered more than 125 satellites to orbit that provide critical capabilities for troops in the field, aid meteorologists in tracking severe weather, enable personal

device-based GPS navigation and unlock the mysteries of our solar system.

For more information on ULA, visit the ULA website at www.ulalaunch.com. Join the conversation at www.ulalaunch.com/ulalaunch. and instagram.com/ulalaunch.

Ball Aerospace

Ball Aerospace (NSYE:BLL) pioneers discoveries that enable our customers to perform beyond expectation and protect what matters most. We create innovative space solutions, enable more accurate weather forecasts, drive insightful observations of our planet, deliver actionable data and intelligence, and ensure those who defend our freedom go forward bravely and return home safely. Go Beyond with Ball. For more information, visit www.ball.com/aerospace or connect with us on Facebook or Twitter.

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https://ball.mediaroom.com/2018-07-09-ULA-and-Ball-Aerospace-Celebrate-10th-Anniversary-of-STEM-Program-with-Student-Rocket-Launch