



### Upcoming Events

- Registration for STLX IV open to 15 Oct 2017
- STLX IV Practice Round 1, 26-29 Oct; Qual Round 1, 10-12 Nov
- STLX IV Practice Round 2, 1-3 Dec; Qual Round 2, 15-17 Dec

#### Notable Quote

“On a personal note, I can’t tell you how excited my cadets are to run this program. After a few months on the team, my team captain has changed her mind and now plans to major in aerospace engineering in college. Great job, guys!”

LtCol (ret) Brian J Noe  
West Orange High School



StellarXplorers III National Champions – San Pedro High School “Sky Dragons,” Xavier Jackson; Saretta Gladson; Mr. Doug Martinez, Team Director; Yoseph Jackson; Anthony Munguia; Xhicheng Yu. The team excelled in competition and greeted the out-briefing judges in nine different languages.

## “Sky Dragons” Earn \$3000 Education Grant

Bill Yucuis

The Sky Dragons of San Pedro HS were named the National Champions of the Air Force Association’s (AFA) StellarXplorers III Challenge. The Sky Dragons topped an initial field of 131 teams, the best ten of which earned their way to the StellarXplorers III National Finals after three rounds of competition. Each champion was awarded a \$3000 education grant. The Scintillators of Kaiserslautern, Germany was named the second place team and each student received a \$2000 grant, while the Rocketeer Steers of Graham, TX placed third and earned \$1000 grants. These grants were sponsored by the Air Force

STEM Program and United Launch Alliance (ULA).

The Finalists began their three day finals by visiting the US Air Force Academy in Colorado Springs for a tour of the Astronautics Laboratory. The students were briefed by Academy Cadets, who work on the design, manufacture and test of the FalconSAT spacecraft. The students also visited the 33rd Space Symposium held at The Broadmoor Resort in Colorado Springs, CO, which is hosted by the Space Foundation. Students had time to visit the Exhibit Hall and interact with space industry leaders.

Following the tours, the students attended a reception hosted by United Launch Alliance. Each student was greeted and welcomed personally by Salvatore “Tory” Bruno, President and Chief Executive Officer of ULA, and General Jay Raymond, Commander of Air Force Space Command. Mr. Bruno opened the event, provided an overview of his career, reviewed the successful run of ULA launches, and pointed out that this really is Rocket Science! Mr Bruno had some of ULA’s young engineers in attendance to encourage the students to continue their hard work. General Raymond

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## StellarXplorers Attracts the Best

Buck Buckwalter

StellarXplorers continues to attract students with a broad set of interests from a variety of backgrounds. Good thing, as it takes many different disciplines to make a space system successful. Space is the most multi-disciplinary of human technological endeavors, incor-

porating virtually every technical specialty. It requires college-trained scientists and engineers, as well as a host of skilled technicians of all types.

The competitors in StellarXplorers III represented 30 states and two overseas locations.

The National Finalists came from the top of Palos Verdes Peninsula to an American high school in western Germany. Participants represented all the major races: 49% were Caucasian, 12% were Asian/Pacific Islander, 17% Hispanic, and

(continued on page 2)



## Recent News from the StellarXplorers Program



### Competition Corner

Tim Brock

Welcome competitors to StellarXplorers IV! We are expecting another series of challenging competition rounds this year. We hope you will continue to learn about how engineers, operators, and business personnel work together to build a successful space system operation. Let's discuss some updates and information that will help you get ready for STLX IV.

We are adding an **additional round** to this year's competition. The top 30% of registered teams will compete in a "Quarterfinal Round" after Qualification Rounds 1 and 2. A team's ranking will be determined from their combined scores in the two Qualification Rounds. Teams not qualifying for the Quarterfinal Round will compete in the Prestige Round held the same weekend as the Quarterfinals. The top 30% of the Quarterfinals teams, but not less than 30 teams, will move on to the Semifinal Round based on their cumulative scores from the Qualification and Quarterfinal Rounds.

We have eliminated the **Alternate**

**Competitor requirement.** Last year, only five of the six team members could compete at one time with the sixth member being the "Alternate". This year, all six team members can participate during the entire six-hour scenario period. Remember, teams can be may up of at least two, but not more than six individuals.

During the Qualification, Prestige, Quarterfinals and Semifinal Rounds, teams will continue to take a 30 minute, open-book **Academic Quiz** as a team. However for this year's National Finals, each individual team member must take a "closed-book" Academic Quiz without assistance from other team members. The team's score for the Academic Quiz will be based on the average score of the quizzes completed by the team. During the finals, team will still have to prepare and present a briefing on the solution to the finals mission scenario.

The **Rule Book** for STLX IV is now available and can be downloaded from the StellarXplorers website ([www.StellarXplorers.org](http://www.StellarXplorers.org)) The book

describes the changes listed above and provides additional information on the rules and procedures for participating in this year's space challenge.

Analytical Graphics, Inc. (AGI) has released an **update to Systems Took Kit (STK)**. Version 11.2 is available for download from the AGI website ([www.agi.com](http://www.agi.com)). STK is simulation and analytical program used for the STLX competition scenarios. Although teams are not required to use this latest version of STK, it is always a good idea to have the latest version on your competition computers. And remember, team members can get "certified" on STK by competing AGI's Certification Program.

Normally, teams accomplish the competition round on Friday, Saturday or Sunday. However for Practice Round 1, teams will be allowed to compete on Thursday. If enough teams show an interest a **Thursday competition option**, this may be added to the other rounds.

That's the latest info on this year's competition. If you have any questions, feel free to send them to our email box at [StellarXplorers@afa](mailto:StellarXplorers@afa).

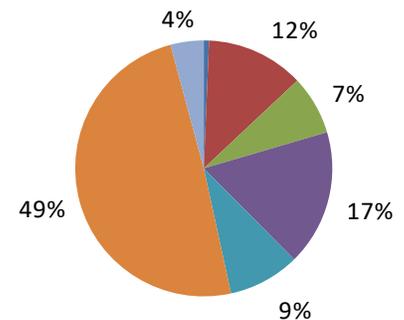
#### Only the Best (from page 1)

7% African-American (9% were more than one race and 4% declined to designate). Over 25% were female and 59% came from Title 1 schools. These students not only represent the best the US has to tackle our next technological challenges, they represent several populations of potentially untapped technical prowess.

The future is bright for future com-

petitions. The diverse disciplines space systems require will continue to attract students from diverse backgrounds with diverse interests. In addition, only one third of the finalists is graduating seniors and will be moving on. The other two-thirds are experienced and prepared to bring an even greater level of competition in the next years' seasons of StellarXplorers.

Ethnicity



## Registration for the new season now open!



Summer 2017

## Sponsor Corner

Stephen Gourley

Several new sponsors joined the team this past season, supporting and maintaining the phenomenal growth of StellarXplorers. United Launch Alliance, Blue Origin, SpaceX, and Lockheed Martin combined with USAF STEM, Orbital ATK, and Kratos Defense to make StellarXplorers III a resounding success. United Launch Alliance made a two year commitment of support as the Program's Travel Sponsor. Also joining the team as part of the Educational Alliance is Embry-Riddle Aeronautical University, adding the unique perspective and understanding of a university to AGI, CEI, and the Space Foundation.

These government, industry, and academic organizations are experiencing the value of seeing and being seen by the Nation's best and brightest. In addition, there are many tangible benefits to sponsoring StellarXplorers and enabling the rapid growth of this exciting and engaging

competition. Four, increasing levels of sponsorship (StellarSilver, StellarGold, StellarPlatinum, and Interstellar) offer a wide range of value and participation in ensuring StellarXplorers reaches, inspires, and motivates an ever greater number of students along the path to STEM education and careers. Locally, individual organizations are encouraged to partner and sponsor a local high school-aged group to participate in StellarXplorers as Individual Team Associates. Engaging a local team ensures the team will remain (and do better) in the competition, while the interaction allows mentors to share their experience and enthusiasm for STEM, as well as enhancing their company's community relations.

Ultimately, to achieve and sustain the growth we know StellarXplorers will experience, the Program needs a Presenting Sponsor. Presenting Sponsor is the highest level of spon-

sorship. It distinguishes the Sponsor to Government, Industry and Community leadership as a responsible corporate citizen, leading the way in promoting STEM education. In addition to enjoying all the benefits of an Interstellar Sponsor, the Presenting Sponsor will be uniquely recognized as the principal sponsor, featured most prominently in promotional material and in-person events, and provided more direct access to the talented students that may someday be its future workforce.

Details of the Program, the competition, and sponsorship opportunities can be found on the website, [www.stellarxplorers.org](http://www.stellarxplorers.org). Check out the Sponsorship Overview brochure at the "Sponsors" tab.

Contact the StellarXplorers Program Office today to become a recognized and distinguished promoter of STEM in the United States.

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### Sky Dragons (from p 1)

congratulated each of the teams for making it to the National Finals and encouraged the students to pursue their STEM education.

The Finals competition was held at the Space Foundation's Discovery Center in Colorado Springs. The StellarXplorers III scenario required teams to monitor ten global sites and obtain data. Teams were given a budget and a series of performance requirements, which needed to be met. The team first had to choose the best orbit to get maximum coverage over a two week period. Next, the team had to choose the best set of onboard

equipment to maximize measurements, while remaining within launch mass limits and the program budget. Finally, the team had to select the launch vehicle which would place the satellite into the chosen orbit at the best price. The teams would be given 8 hours to submit their solution, including a presentation, which would be used to give a scored out-briefing the following morning. These briefings allowed each team to explain how they arrived at their solution and why they felt it was the best solution. These briefings counted as 20% of the overall Finals Score. Each team had 13 minutes to brief

the judges and each team member was required to participate in the briefing.

The National Finals culminated in an Awards Banquet, at which the Finalists were feted to a formal dinner and the top three, StellarXplorers III teams announced. Mr Kevin Gooder, SAF/AQRM, congratulated all the competitors, and thanked the StellarXplorers staff for their efforts to expand the program and excite the students about space. The following morning, it was time for teams to return to their schools and get ready for **StellarXplorers IV**.

## Become a StellarXplorers Sponsor TODAY!

## Recent News from the StellarXplorers Program

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*The Air Force Association (AFA) is a 501(c)(3) non-profit, independent, professional military and aerospace education association promoting public understanding of aerospace power and the pivotal role it plays in the security of the nation. AFA publishes Air Force Magazine, conducts national symposia, and disseminates information through outreach programs.*

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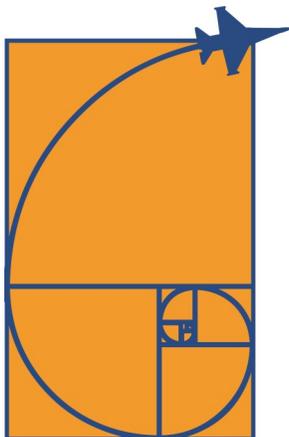
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