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## **StellarXplorers VIII National Finals Competition!**

The StellarXplorers VIII season, presented by Lockheed Martin, began with 375 teams from across the country competing in four rounds of competition. The National Finals, held April 21-23, featured the 10 remaining teams in a tense, two-day competition.

"These students impressed us with the complex, real-world technical issues they worked through together here in Houston," said Sonia Phares, StellarXplorers board member and Vice President of Engineering & Technology at Lockheed Martin Space. "They displayed poise and enthusiasm, from calculating a complex budget to solving mass challenges through communication and conflict resolution. Lockheed Martin feels pride and confidence in the next generation of space professionals."



Team Panther #3 from Palos Verdes Peninsula High School in Rolling Hills Estates, Calif., pose with AFA President Lt. Gen. Bruce "Orville" Wright, USAF (Ret.) and Space Force Maj. Gen. Shawn Bratton after winning the StellarXplorers VIII Competition on April 23, 2022.

Teams had the opportunity to tour local space industry facilities at Nanoracks and Leidos, experiencing real-world examples of the same technology used in the orbital planning, satellite design, and launch programming components of the StellarXplorers competition. Finalists also toured Space Center Houston, where they learned about the remarkable history of manned space flight and were motivated by the exciting future of space exploration.

"Space Center Houston is an incredible venue. It embodies all the STEM opportunities our students have by competing where such historical and ongoing space endeavors take place," said Zachary Shelton, Director of StellarXplorers. "We extend our sincere gratitude to our presenting sponsor, Lockheed Martin, and our other generous supporters for investing in our nation's youth by developing a Space STEM educational and professional pipeline."

The other top finishers from the StellarXplorers VIII National Finals Competition included the 2nd place finisher, Flying Tigers from North Allegheny High School AFJROTC in Pittsburgh, Pa., and 3<sup>rd</sup> place finisher The Dunkelnavts from Valencia High School AFJROTC Team #1 in Valencia, Calif.



## Aerospace News

### [See the Fiery Blood Moon rise in a total lunar eclipse on May 15-16](#)

On the night of May 15-16, the attention of millions of people will be drawn skyward, where a mottled, coppery globe – the moon – will be completely immersed in the long, tapering cone of shadow cast into space by our planet. If the weather is clear, skywatchers across most of the Americas, Europe and Africa will have a view of one of nature's most beautiful spectacles: a total eclipse of the moon.

Unlike a total eclipse of the sun, which often requires a long journey to the path of totality, eclipses of the moon can usually be observed from your own backyard. The passage of the full moon through Earth's shadow is equally visible from all places within the hemisphere where the moon is above the horizon. The totality phase of the upcoming total lunar eclipse of May 2022 will be visible across much of North America.



### [See SpaceX's Crew-3 Dragon capsule streak back to Earth](#)



SpaceX's Crew-3 astronaut mission's return to Earth early Friday (May 6) was captured in epic photos as the crew wrapped up a half-year on the International Space Station.

Both NASA and SpaceX, which supplied Crew-3's Dragon capsule for the agency, captured the streaking spacecraft high in the atmosphere in the minutes before the successful splashdown

### [Eta Aquarid meteor shower of 2022 thrills stargazers in these stunning photos](#)

Meteor streaks delighted skywatchers this weekend as the Earth passed through the dust trail of Halley's Comet in an annual meteor shower display.

The Eta Aquarid meteor shower, which is visible in both the Northern and Southern hemispheres in the constellation Aquarius, peaked this weekend with the most ideal observing times in the wee hours of the morning after 3 a.m. local time, weather permitting.

Skywatchers were expected to see as many as 30 meteors an hour streaking through the Earth's atmosphere in a late spring "shooting stars" display. The event is best known for fast-moving meteors with long trains, moving as fast as 41 miles (66 kilometers) per second, according to the American Meteor Society.





## StellarXplorers Sponsors

Presenting Sponsor—Lockheed Martin

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## Educational Alliance Partners



## Space Careers

### Artificial Intelligence / Machine Learning Engineer

An AI engineer builds AI models using machine learning algorithms and deep learning neural networks to draw business insights, which can be used to make business decisions that affect the entire organization. These engineers also create weak or strong AIs, depending on what goals they want to achieve. AI engineers have a sound understanding of programming, software engineering, and data science. They use different tools and techniques so they can process data, as well as develop and maintain AI systems.



“As an AI/ML Research Engineer at Lockheed Martin, I am responsible for developing tools that allow computers to automate processes that are typically very challenging or time consuming for a human to do. For example, I might want to instantaneously count the number of cars in a parking lot from a satellite image, or automatically monitor debris as it flies around in space and detect if an object is at risk of damaging a satellite. Most importantly, I need to be able to understand the logic and weaknesses of these tools so that they can be used and trusted for critical defense or national security problems.” – Matthew Reisman, AI/ML Research Engineer, LM Space

### Aerospace Opportunities!

[Virtual Space in the Community](#) is a series of videos in association with leading companies and business partners with STEM resources for students and teachers alike!

They have some truly amazing interviews and videos, spanning topics such as career paths like Opto-Mechanical Engineering and Image Science and Satellite Imaging to topics about Mars Lander Design, Mars Habitat and Life Science!