KELLY HERITAGE FOUNDATION CONTINUES TO CONNECT STUDENTS WITH FUTURES IN SPACE TECHNOLOGY

GIFTS TOTALING MORE THAN $300,000 ALLOW WEX FOUNDATION TO GROW PROGRAM THAT IS PREPARING STUDENTS TO BECOME THE NEW GENERATION OF INNOVATORS IN AEROSPACE AND RELATED FIELDS.

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SAN ANTONIO, TEXAS – The WEX Foundation's highly successful Lunar Caves Analog Test Sites (LCATS) program, a three-year STEM/STEAM initiative based on a hands-on space science curriculum, received a major boost in funding that will enable it to welcome two cohorts — with each featuring 35 San Antonio-area middle school students — for the ongoing and upcoming school years.

LCATS alumnae Alinne and Brenda Romero-Torres with a model robot cliff crawler for scaling down lunar pits, carrying a CanSat science instrument payload.

The program is provided to students at no charge, and the next two academic years will see 70 students funded exclusively through gifts totaling $315,000 awarded by the Port-affiliated Kelly Heritage Foundation. This new round of donations follows the Kelly Heritage Foundation's previous gift of $150,000 in 2023. Combined, the Kelly Heritage Foundation's $465,000 in awards to the WEX Foundation will have directly benefitted over 100 area middle schoolers by the close of the 2025-26 school year.

Offered free of charge to students and their schools, the LCATS program is a cornerstone of learning experiences provided by the WEX Foundation as an integrated, multi-disciplinary approach that introduces students to the different technologies thriving on the Port campus and across the region.

Since future colonies on the Moon will likely be built inside lunar caves that protect humans from radiation and other hazards, LCATS programs include visits and research activities in caves across South and Central Texas. (Photo courtesy of the WEX Foundation)

Established in 2017, LCATS enables middle and high school students to work alongside aerospace and other industry professionals to tackle real-world space exploration challenges and offer solutions through an array of investigations, experiments and design projects. Concepts addressed by the effort include the development of satellite and other large infrastructure in Earth's orbit and on the surface or within caves on the Moon (hence, the Lunar Caves moniker). Now, with the added support that has been provided by the Kelly Heritage Foundation, more than 200 students will have participated in LCATS by the end of the 2025-26 academic year. Many of its graduates have undertaken further studies in space science and related technologies, and they are well on their way to careers in those fields.

As part of their learning experiences, which are scheduled after school and on weekends, students participate in expeditions to area caves to conduct research and experiments and also learn design skills and practical applications in the classroom and lab. Curricula include learning 3D

printing technology and how it can be the basis of upcoming lunar construction by utilizing regolith minerals readily available on the Moon's surface. LCATS' learning experiences parallel much of the work that is being advanced in San Antonio by the WEX Foundation's affiliated commercial enterprise, Astroport Technologies.

The WEX Foundation and Astroport have been based at Port San Antonio's large technology innovation campus since 2019 and 2020, respectively. In addition to maintaining a research facility at the Port, WEX and Astroport's combined efforts developing integrated technological solutions to support lunar construction — thanks to the work of previous LCATS cohorts — is on display at the San Antonio Museum of Science and Technology's AREA 21 exhibit hall.

Scale models of future habitats on the Moon designed and created with three-dimensional building technology by young students participating in WEX Foundation programs are on display at the San Antonio Museum of Science and Technology.

"The WEX Foundation has a proven track record of results, and we are proud to stand by its dedicated team of educators and scores of leading technology professionals who are sparking the imaginations of young people and opening their eyes to San Antonio's special standing in the world of aerospace and space exploration," said Kelly Heritage Foundation President Jim Perschbach, who also serves as President and CEO of Port San Antonio.

"During the time we have partnered with the WEX team, we have continually been impressed by the quality of engagement of students and the trajectories taken by the young people they nurture. We are excited to continue our support and to help scale and broaden the reach of their work," he added.

"The Kelly Heritage Foundation has been an invaluable partner in our shared mission to develop the talent of young people and connect them with life-changing opportunities — here on Earth and far beyond," said WEX Foundation founder Sam Ximenes.

"Space is the domain where new technologies will be deployed to the benefit of billions of people on our planet — from systems that will power our communications networks to tapping into boundless sources of energy and natural resources on the Moon and beyond," he added. "Thanks to the support of the Kelly Heritage Foundation, we have expanded the learning resources to develop and channel the talent of young people who, in the not-too-distant future, are being positioned to make these ambitious aspirations a reality."

Since 2023, and including the awards just announced, the Kelly Heritage Foundation has contributed over $880,000 to innovative San Antonio-based STEM/STEAM programs.

In 2023, the nonprofit provided over $200,000 to fully fund one of the largest single-day computer build programs in the nation, in which 100 area students personally assembled state-of-the-art gaming systems under the mentorship of leading industry professionals; students were able to keep their computers at the conclusion of the event.

Shortly thereafter, the San Antonio-based Dee Howard Foundation was the recipient of $150,000 to support an upcoming drone technology program which was delivered at no cost to area middle and high school students during the 2023-24 school year.

Rendering of what the early phases of a colony on the Moon might look like. In the foreground, robots are building a launch pad with bricks created by grinding, melting and re-shaping basaltic moon rocks. (Image courtesy of XArc)

ALUMNI SPOTLIGHTS

Lucci taking part in an LCATS cave expedition

Lucci posing with Kenneth Kinsey (left) and Sam Ximenes (center) of Astroport Space Technologies.

Raut as she was interviewed in 2021 when she and fellow LCATS students connected in real time with astronauts aboard the International Space Station. (Credit: KSAT-TV)

FRANK LUCCI (CURRENT LCATS STUDENT)

Currently: Lucci is a junior at BASIS San Antonio Shavano, where he is taking advanced placement courses, is a member of the robotics team, runs cross country and leads an aerospace club he founded three years ago.

He is an engineering and physics enthusiast who is passionate about deep space travel and interplanetary colonization, and he is researching space-related technology while teaching BASIS aerospace club members how to design, build and fly remote-controlled planes.

A 2024-25 LCATS mentor, Lucci has competed in both the American Rocketry Challenge and NASA's TechRise Challenge. During the last two summers, Lucci has interned with professional engineers and chemists at Astroport Space Technologies, where he has gained vast technical skills (such as operating a CNC machine, heavy-duty power tools and applied AI generative design and modeling).

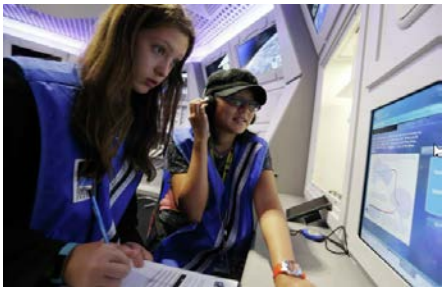
LCATS Memories: "My favorite memories were exploring Robber Baron Cave (and seeing the bats), touring Southwest Research Institute and launching our high-altitude balloon as we partnered with Magnitude.io, where I got to present our group's research at the AIAA Orange County Conference! The LCATS experience made me feel more me. I've always had an interest in space-STEM, and being given the chance to not just learn more about it, but to act on it, was such an invaluable opportunity. I looked forward to every meeting with my cohort, and every project — such as designing a mock lunar excavator — made me expand my horizons. LCATS has inspired me in a way to believe in myself and envision my future in astrophysics theory as a reality."

SIDDHI RAUT (2022 LCATS GRADUATE)

Currently: Raut is an incoming senior at Reagan High School who continues to actively pursue space research. This includes working on an independent project replicating Martian environments and serving as a member of the Astrophysics Theory Group at Baylor University.

Raut has also launched a nonprofit called SpaceTourist, which provides students with the resources to pursue research and activities guiding them toward future careers in STEM. Run mostly by high school and college students, as well as former NASA interns, the organization seeks to level the playing field for all students — no matter their background.

Raut received an award from WEX Foundation founder Sam Ximenes for her work as part of the LCATS program. (Credit: WEX Foundation)



Natalie Sherman (left) and Nicole Gardner from Young Women's Leadership Academy, shown in 2017 at the Challenger Learning Center. (Credit: Kin Man Hui/San Antonio Express-News)

Sherman (left) as she and fellow LCATS alumni prepare to venture into a nearby cave system. (Credit: WEX Foundation)

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NATALIE SHERMAN (2020 LCATS GRADUATE)

Currently: Spending the summer of 2023 as an intern for the WEX Foundation with plans to begin her freshman year at the University of Texas at Austin in the fall, concentrating on economics and pre-law.

LCATS Memories: "I especially remember the cave trip to Robber Baron Cave where we mapped passages of the cave system with LIDAR. Another memorable moment was in the last year, where Mr. Ximenes mentored me in researching and writing a paper on long-term lunar surface habitation, which I presented at the 2020 UTSA Earth Symposium. The ability to pursue guided research at such an early point in my academic career has opened up so many opportunities for me. I thoroughly enjoyed learning from industry professionals about space and engineering, and I would highly recommend the program to any student who is considering applying, even if they don't see themselves going into engineering, space, etc. The freedom given to me as a middle schooler to accomplish goals without a roadmap led to me developing invaluable skills I will use for the rest of my life."