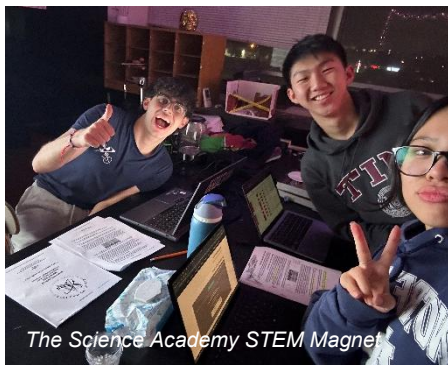




COMPETITION | STELLARCAMPS | SPONSOR NEWS | STEM RESOURCES | SPACE NEWS | JUST FOR FUN

NATIONAL SPACE DESIGN COMPETITION

Semifinalists prepare for upcoming competition



The Science Academy STEM Magnet



Nampa Composite Squadron



Crescenta Valley High School AFJROTC

After three challenging qualification rounds over the past several months, 117 teams have advanced to the Semifinal Round of the StellarXplorers Space Design Competition, scheduled for February 19-22. The semifinals mark a major milestone in the competition season, as only the top 30% of teams earn the chance to compete at this level. Unlike previous rounds that focused on a sole topic, teams will be asked to tackle a complex mission scenario, applying their skills across multiple areas (satellite design, orbital planning, and/or launch operations). Performance in this round alone will determine which teams move forward.

The stakes are high: the top 10 teams will earn an all-expenses-paid trip to the in-person National Finals in April, where they will travel to Denver, Colo., to compete for national recognition and top honors.

Congratulations to all 117 semifinalist teams on this outstanding achievement, and best of luck as they aim for a spot in the National Finals!

STELLARCAMPS

The StellarCamps curriculum is available yearround for purchase (one-time purchase for \$99). Whether you're looking to spark interest in aerospace or build foundational skills for competition success, StellarCamps provide the perfect launchpad. Depending on your needs, the StellarCamp curriculum can be used in a group setting or as a self-paced course for individuals.

Learn more or get started today at www.stellarxplorers.org/stellarcamps.



Photo provided by the Basic Research Innovation Collaboration Center (BRICC)

SPONSOR NEWS

Inside the Avionics That Make Artemis II Possible: How L3Harris Units Drive the SLS

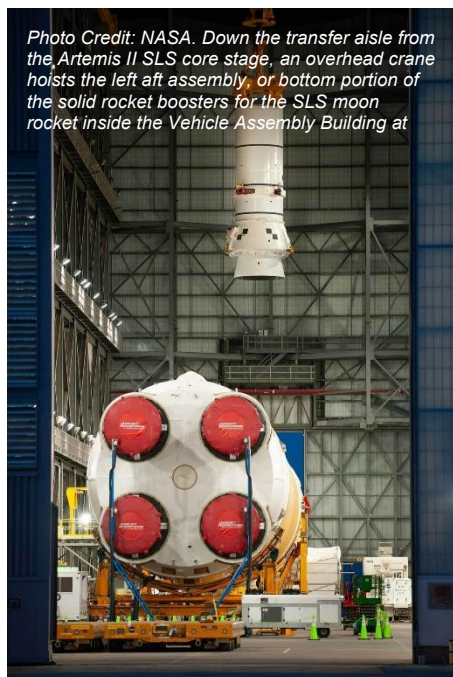


Photo Credit: NASA. Down the transfer aisle from the Artemis II SLS core stage, an overhead crane hoists the left aft assembly, or bottom portion of the solid rocket boosters for the SLS moon rocket inside the Vehicle Assembly Building at

When Artemis II launches, it will mark the first human journey around the moon in over 50 years. The Space Launch System (SLS) will generate the immense thrust needed to send Orion and its crew toward lunar orbit, but the mission's success also depends on the high-reliability avionics hardware embedded throughout the rocket.

Developed by L3Harris, in support of Boeing, these flight-critical electronics handle sensing, control, sequencing, data handling and power distribution functions that allow one of the world's most complex launch vehicles to operate as a coordinated system.

The SLS is built from several major elements: the core stage, solid rocket boosters and the Interim Cryogenic Propulsion Stage, each with its own propulsion, structural and thermal demands. To fly as a single rocket, those elements have to work in lockstep. Integrated with Boeing's avionics suite, the avionics provided by L3Harris help make that possible, supporting coordinated operation across the vehicle by handling data, routing electrical power and providing the command interfaces that allow the SLS to act as one integrated system.

As the rocket climbs away from the launch pad, these electronics continuously gather temperature, pressure, vibration and load data from across the vehicle. That information is fed to onboard and ground systems while electrical power is distributed to the propulsion and computing systems that must remain active every second of ascent. Built to operate alongside cryogenic propellants and endure extreme vibration, acoustic and thermal environments, the avionics deliver the steady, predictable performance required at every phase of flight.

From the moment of liftoff, the SLS depends on a steady flow of information to stay on course. During ascent, the avionics developed by L3Harris support the data handling and interfaces that provide continuous vehicle health and status information to both onboard and ground systems. Not only is that telemetry collected, but it is also transmitted wirelessly to the ground over radio frequency links, providing real-time insight for teams on Earth. That shared view allows NASA's flight computers to monitor performance and make precise adjustments as the rocket climbs toward space.

Equally critical is timing. The sequencing functions supported by these avionics help ensure that major events, engine start, solid rocket booster separation, upper-stage ignition and more happen in the correct order and at exactly the right moment. In a human-rated launch vehicle, there is no room for mistimed transitions. These electronics help deliver the precise coordination and reliability required for a safe and controlled ascent. *Read more at <https://spacenews.com/l3harris>.*

United Launch Alliance (ULA) Vulcan rocket delivers national security spacecraft directly to geosynchronous orbit for the U.S. Space Force Space Systems Command on the USSF-87 mission

A United Launch Alliance Vulcan rocket carrying a suite of classified Space Force payloads suffered what appeared to be a burn-through at or near the nozzle of a strap-on solid-fuel booster Thursday but apparently made an otherwise "nominal" ascent to space, the company said.

The two-stage Vulcan rocket thundered to life at 4:22 a.m. EST and majestically climbed away from pad 41 at the Cape Canaveral Space Force Station atop 2.9 million pounds of thrust from twin methane-burning Blue Origin BE-4 engines and four Northrop Grumman solid-fuel boosters.



Visit the mission website at <https://www.ulalaunch.com/missions/next-launch/vulcan-ussf-87>

STEM RESOURCES

STEMtoSky: Classroom Connections



Thanks to the work of Air & Space STEM Outreach, you can register for STEMtoSky 2026! STEMtoSky is designed to facilitate virtual connections between Air Force Airmen and K-12 classrooms. We hope to share the importance of STEM careers in the Air Force.

For these virtual engagements your classroom will be assigned an Airman volunteer (military or civilian). The volunteer will virtually meet with you and your students for a 20-30 minute presentation and question and answer session. Educators and volunteers will choose a date and time that works with all schedules, between May 4-22.

Registration opens February 27, 2026. Don't miss out on this opportunity! For more information, visit <https://dafstem.us/stemtosky/#>

Join the StellarXplorers Alumni Network

This is a private group for past and present StellarXplorers participants. You must be at least 16 years of age to join, according to LinkedIn account regulations. All requests to join will be reviewed by StellarXplorers staff to verify participation in the program.



To join, visit: <https://www.linkedin.com/groups/12721859/>

SPACE NEWS



Curious About What's Happening Overhead?

Check out the Space.com [Space Calendar](#) to stay up to date with upcoming planned rocket launches and skywatching-worthy dates. And in case you missed it...

- 12 FEB 2026 | [Here's what will happen during each phase of the Feb. 17 'ring of fire' annular solar eclipse](#)
- 11 FEB 2026 | [Why are the launch windows for NASA's Artemis 2 moon mission so short?](#)
- 10 FEB 2026 | [Who are the astronauts of SpaceX's Crew-12 mission to the ISS?](#)
- 03 FEB 2026 | [NASA's Perseverance Mars rover completes its 1st drive planned by AI](#)
- 31 JAN 2026 | [What actually happens to a spacecraft during its fiery last moments? ESA wants to find out](#)
- 30 JAN 2026 | [Artemis 2 moon suits ready to make history photo of the day for Jan. 30, 2026](#)
- 29 JAN 2026 | [US government declassifies Cold War-era 'JUMPSEAT' spy satellites](#)
- 21 JAN 2026 | [Record-setting astronaut Suni Williams retires from NASA after 27 years](#)
- 14 JAN 2026 | [Crew-11 astronauts undock in 1st-ever medical evacuation from the ISS](#)

Space Photos:



The four spacesuits to be worn by the Artemis 2 crew hang in the suit-up room of the Neil A. Armstrong Operations and Checkout Building. (Image credit: NASA/Joel Kowsky)



Cloud streets' stream from the Florida coast

The strange clouds formed due to the freezing air sweeping southwards over Florida in early February. (Image credit: NOAA)

JUST FOR FUN

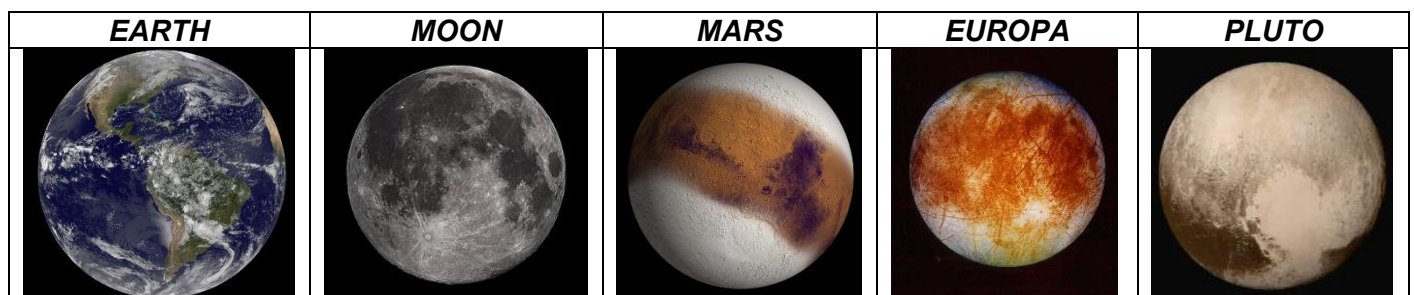
If the Winter Olympics went interplanetary, where else could you ski in the solar system?



Every winter, skiers chase smooth carving turns, reliable snow and that dream run. As the Milano Cortina Winter Olympics 2026 unfold on Earth, it raises a fun question: if the Games ever leave our planet, where else in the solar system could you actually ski?

Skiing is surprisingly picky about physics. Snow, gravity and temperature all have to cooperate for conditions to be suitable, and very few worlds get that balance right.

For now, we're setting spaceflight and human factors logistics aside. Let's assume you can travel easily throughout the solar system, survive the journey, and safely stand on the surface of another world without worrying about travel times, life support, radiation, or the right space suit. If you could step outside onto another world and click on a pair of skis, would the surface actually cooperate?



Read the [full article](#) from Space.com to see which world would take the gold for ski terrain! First person to reply to info@stellaxplorers.org with the correct answer will receive an official StellarXplorers patch.

Stay in the Know!



[@AFA_STLX](https://twitter.com/AFA_STLX)



[AFA StellarXplorers](https://www.facebook.com/AFAStellarXplorers)



[@afastellarxplorers](https://www.instagram.com/afastellarxplorers)

Tweet us, like us, follow us, and share with StellarXplorers on your favorite platform!

We would love to share some stories about your team. Send them our way: info@stellarxplorers.org.

StellarXplorers is generously supported by:



AIR & SPACE
STEM Outreach



L3HARRIS™



BAHETHI FAMILY
FOUNDATION



BAE SYSTEMS



SCIENCES EDUCATION FOUNDATION
GENERAL ATOMICS

ANSYS

GOVERNMENT INITIATIVES (AGI)



Help support the next generation of the STEM workforce – [Become a Sponsor](#) | [Donate](#)