



February 2025

Update

**Oklahoma Space
Alliance**

A Chapter of The
National Space Society

A free email newsletter of the Oklahoma Space Alliance

Nile River at Night from ISS



Credit: NASA/Don Pettit



February 2025 OSA Meeting

Saturday, February 8, 2025

2:00 PM

**Cliff & Claire McMurray's
House**

2715 Aspen Circle, Norman, OK 73072

405-863-6173

Program— Space News and
Events

Website: <http://osa.nss.org>

Quote of the Month

Success is uncertain, but entertainment is guaranteed! – Elon Musk (tweeted reaction to Starship Flight 7's RUD)

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Oklahoma Space Alliance Update

February 8, 2025

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Finally!



Credit: Blue Origin

Blue Origin's New Glenn made it to orbit on its first try, on January 16. The first stage didn't stick the landing on the company's landing platform ship, Jacklyn, though.

Articles: <https://www.space.com/space-exploration/launches-spacecraft/jeff-bezos-blue-origin-launches-massive-new-glenn-rocket-into-orbit-on-1st-flight-video>

<https://spacenews.com/new-glenn-reaches-orbit-on-first-launch/>

<https://spacenews.com/faa-requires-mishap-investigation-for-failed-new-glenn-landing/>

One Step Forward, One Step Back



Credit: SpaceX

Starship flight 7, also on January 16, saw another successful catch of the first stage, but contact with the upper stage was lost about 8.5 minutes after launch; the upper stage exploded over the Atlantic without reaching orbit.

Articles: <https://pjmedia.com/vodkapundit/2025/01/17/starship-flight-test-7-now-that-was-one-spectacular-failure-n4936074>

<https://www.space.com/space-exploration/launches-spacecraft/spacex-catches-super-heavy-booster-on-starship-flight-7-test-but-loses-upper-stage-video-photos>

<https://www.space.com/space-exploration/private-spaceflight/watch-spacex-starship-explode-over-atlantic-ocean-on-flight-test-7-videos>

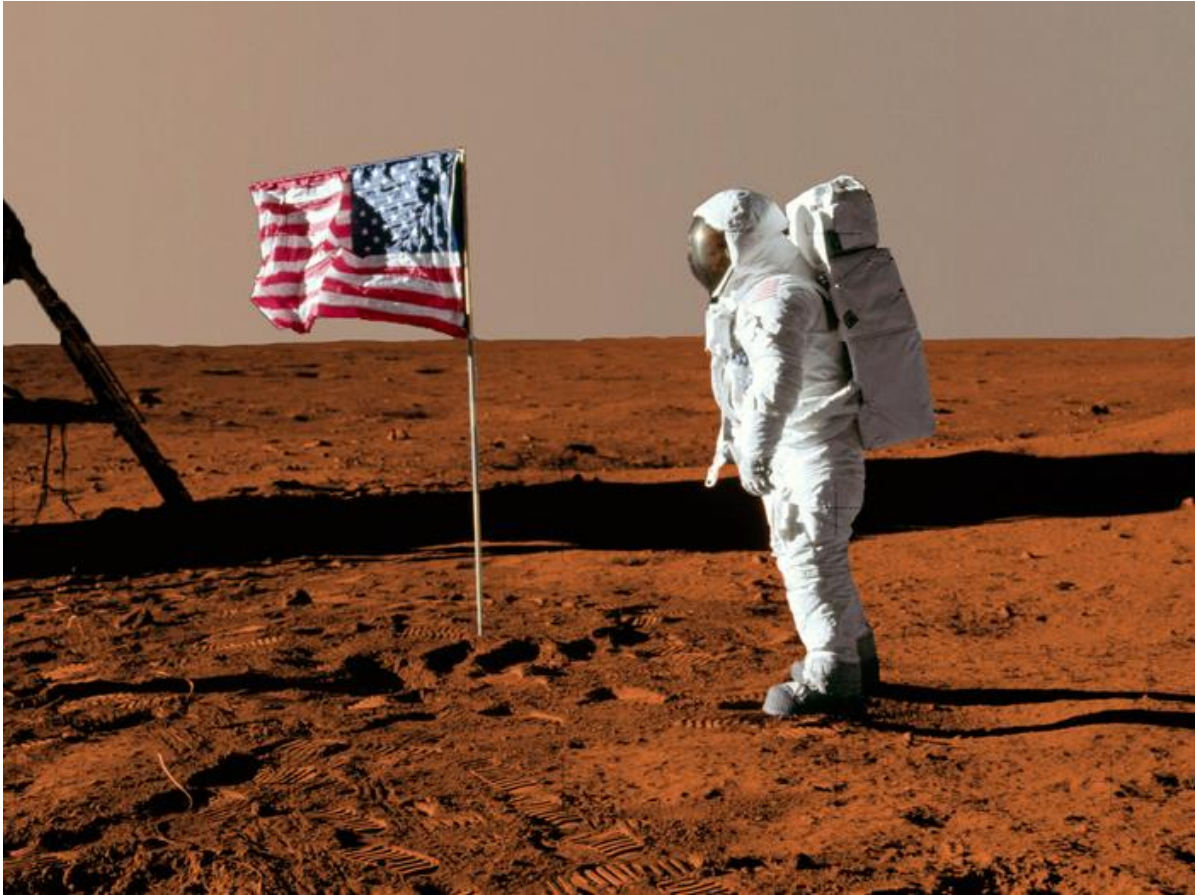
<https://spacenews.com/starship-upper-stage-lost-on-seventh-test-flight/>

<https://www.space.com/space-exploration/private-spaceflight/spacex-starship-explosion-likely-caused-by-propellant-leak-elon-musk-says>

<https://spacenews.com/faa-investigating-starship-debris-reports/>

<https://www.space.com/space-exploration/private-spaceflight/faa-requiring-investigation-into-spacex-starships-flight-7-explosion>

The Stars and Stripes Wherever



Credit: NASA; Business Insider

President Trump's inauguration speech included the following: "My message to Americans today is that it is time for us to once again act with courage, vigor and the vitality of history's greatest civilization. The United States will once again consider itself a growing nation, one that increases our wealth, expands our territory, builds our cities, raises our expectations and carries our flag into new and beautiful horizons. And we will pursue our manifest destiny into the stars, launching American astronauts to plant the stars and stripes on the planet Mars."

Articles: <https://www.space.com/space-exploration/we-will-pursue-our-manifest-destiny-into-the-stars-president-trump-wants-astronauts-to-raise-the-american-flag-on-mars>
<https://spacenews.com/second-trump-administration-begins-with-confusion-on-acting-nasa-leadership/>
<https://spacenews.com/trumps-second-term-the-space-priorities-and-players/>

ESA Pushes Its Chips In



Credit: ESA website

On January 30, Thales Alenia Space announced it had been awarded a contract worth nearly \$900M for development and delivery of the Lunar Descent Element (LDE) of Argonaut, the European Space Agency's cargo lander. Argonaut is slated for missions to the Moon starting in the 2030s. ESA's Explore2040 plan looks to put its astronauts on the moon and, eventually, Mars. There's even a study moving forward for an electrically-propelled manned Mars ship called Lightship; whether that moves forward will be decided at the next ESA ministerial council meeting this November.

Article: <https://spacenews.com/europe-awards-900-million-contract-for-argonaut-lunar-lander-development/>

<https://www.space.com/the-universe/moon/europe-signs-contract-for-its-1st-moon-lander-argonaut>

<https://www.space.com/europe-astronauts-moon-mars-explore-2040>

<https://blogs.esa.int/to-mars-and-back/2024/09/17/seven-things-you-didnt-know-about-europes-tug-to-mars/>

https://www.esa.int/Science_Exploration/Human_and_Robotic_Exploration/Exploration/Terrae_Novae_Europe_s_exploration_vision

Whistling Past the Graveyard



Credit: Polaris Program

The Walking Dead, aka the companies involved in the SLS/Orion lunar exploration program, urge the Trump administration to retain the current architecture, arguing it still offers the fastest way to return humans to the moon. Yeah, that'll be happening... Meanwhile, the Aerospace Safety Advisory Panel (ASAP), has (again) voiced concerns that the number of first-time objectives currently built into Artemis 3 offers multiple opportunities for single-point failures in the flight plan.

Article: <https://spacenews.com/artemis-contractors-defend-current-architecture-as-fastest-way-to-return-to-the-moon/>

<https://spacenews.com/safety-panel-urges-nasa-to-reassess-artemis-mission-objectives-to-reduce-risk/>

A Modest Beginning



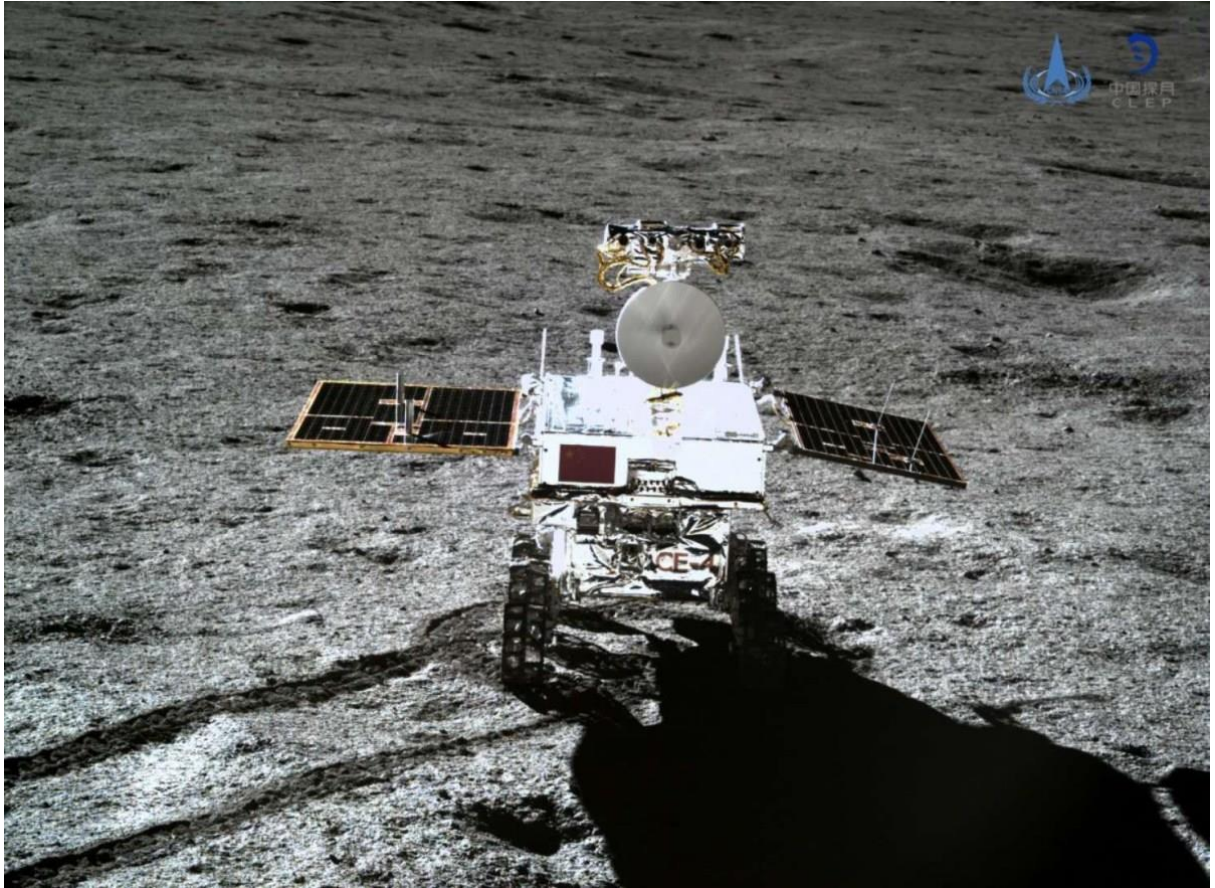
Credit: CNSA

STAR.VISION Aerospace Group Limited will team up with Zhejiang University (ZJU) and the Middle East Technical University (METU) in Türkiye to develop two, 5-kilogram lunar surface micro-exploration robots for China's Chang'e-8 mission which is scheduled for launch in 2028. STAR.VISION is the first Chinese private enterprise approved by the China National Space Administration (CNSA) to participate in the lunar exploration program. Two of the cargo deliveries to Tiangong this year will be flown by commercial providers. More commercial participation to come?

Article: <https://spacenews.com/china-embraces-commercial-participation-in-moon-mission-for-the-first-time/>

<https://spacenews.com/china-to-launch-2-new-space-station-cargo-spacecraft-on-commercial-rockets-in-2025/>

No Signs of Life



Credit: China Lunar Exploration Program/China National Space Administration.

Per imagery from NASA's Lunar Reconnaissance Orbiter (LRO), China's Yutu-2 rover, appears to have been stationary since March 2024. Yutu-2 is part of the first ever mission to land on the far side of the moon, the lunar rover component of the Chang'e 4 mission, which landed in Von Kármán crater in the South Pole-Aitken Basin on January 3, 2019.

Article: <https://spacenews.com/yutu-2-rover-likely-immobile-on-the-moon-after-historic-lunar-far-side-mission/>

Let's Put a Rush on That



Credit: White House

Among the many executive orders signed by President Trump in his first few days in office was the “Iron Dome for America” order, signed on January 27. It calls for the development of a comprehensive new missile defense system for the United States, including space-based interceptors.

Article: <https://spacenews.com/trump-orders-iron-dome-for-america-in-sweeping-missile-defense-push/>

At Least She Got a New Record Out of the Deal



Credit: NASA

Sunita “Sunni” Williams may have seen her eight-day mission turn into a ten-month marathon when Boeing’s Starliner left her stranded on ISS, but she hasn’t been twiddling her thumbs while she waits for a Dragon capsule to bring her home. On January 30, in the course of a 5-hour and 26-minute spacewalk with fellow castaway Barry “Butch” Wilmore, she set a new record for the most time spent in the vacuum of space by a woman. Her 62 hours and 6 minutes beats the previous record of 60 hours and 21 minutes, set by Peggy Whitson in 2017. Williams is currently the commander of ISS; this was her eighth (ninth?) spacewalk.

Article: <https://www.space.com/space-exploration/international-space-station/nasa-astronauts-free-stuck-radio-unit-collect-microbes-and-set-record-on-station-spacewalk>

Beats Goldfish as a Screensaver



Credit: Sen

SpaceTV-1, a set of Ultra High Definition 4k cameras from space streaming company Sen, was delivered to the International Space Station (ISS) last March. It is now broadcasting live views of Earth and space 24/7. Watch to your heart's content.

Article: <https://www.space.com/the-universe/earth/watch-earth-and-space-in-4k-with-new-24-7-livestream-from-iss-video>

Varda Rides Again



Credit: Varda Space

...this time with an Air Force Research Laboratory (AFRL) payload whose purpose is to collect information that will help refine thermal protection systems, sensor designs, and aerodynamics for hypersonic vehicles.

Article: <https://spacenews.com/vardas-second-mission-launches-with-u-s-air-force-payload/>

They Did It



Credit: ISRO

On January 15 India's Space Docking Experiment (SpaDeX) was successfully concluded with the autonomous rendezvous and docking of two small satellites. India is the fourth nation to demonstrate this capability, which will be needed for its planned space station and lunar missions.

Articles: <https://spacenews.com/india-completes-on-orbit-docking-test-in-step-towards-major-space-plans/>
<https://www.youtube.com/watch?v=QoxVFRNPTw8>

Spinning Descent



Credit: Blue Origin

With the flight of NS-29 on February 4, Blue Origin demonstrated a new capability for suborbital research flights. The New Shepard capsule was spun on the way down, allowing it to simulate lunar gravity for experiments.

Articles: <https://www.space.com/space-exploration/human-spaceflight/blue-origin-mimics-moon-gravity-on-1st-of-its-kind-new-shepard-suborbital-research-flight-video>
<https://spacenews.com/blue-origin-launches-new-shepard-on-lunar-gravity-suborbital-flight/>

All Dates Move to the Right



Credit: Vast

Vast had hoped to launch its first private space station, Haven-1, before the end of this year. But now that launch is targeted for no earlier than May 2026. The good news is that the testing of a qualification model is going very well. Even before Haven-1 has flown, Vast released the design of Vast-2, with which it hopes to win a NASA commercial station contract.

Articles: <https://spacenews.com/vast-begins-haven-1-testing-and-reschedules-its-launch/>

<https://spacenews.com/vast-releases-design-of-haven-2-commercial-space-station/>

Did You Think He Was Kidding?



Credit: NASA/Kim Shiflett

He wasn't. Trump campaigned on ending DEI and woke gender ideology in government, and two of his executive orders moved to do just that. NASA is not exempt, and, like other government agencies, is scrambling to comply. And incidentally, how many NASA employees will take the buyout?

Articles: <https://spacenews.com/nasa-shutters-diversity-offices-to-comply-with-executive-order/>
<https://spacenews.com/top-house-science-committee-democrat-asks-nasa-for-information-on-executive-order-implementation/>
<https://spacenews.com/nasa-pauses-work-of-science-groups-citing-trump-executive-orders/>
<https://spacenews.com/fork-in-the-road-buyout-offer-reaches-national-security-agencies-despite-exemptions/>

Different Paths, Same Destination



Credit: NASA

Firefly Aerospace's Blue Ghost and ispace's HAKUTO-R M2 Resilience lunar landers shared a ride to orbit on a Falcon 9 on January 15. But their flight paths diverge from there. Blue Ghost will spend 25 days in Earth orbit, followed by a 4-day trajectory to lunar orbit, and land in Mare Crisium 16 days later. Resilience is taking a very circuitous, energy-efficient path to lunar orbit; it's expected to reach lunar orbit (after a lunar flyby coming up soon) four months from launch. After two weeks in lunar orbit, it will attempt landing in Mare Frigoris.

Articles: <https://spacenews.com/falcon-9-launches-american-and-japanese-commercial-lunar-landers/>

<https://www.space.com/space-exploration/launches-spacecraft/spacex-launches-2-private-lunar-landers-to-the-moon-photos>

<https://www.space.com/space-exploration/launches-spacecraft/whats-next-for-the-2-private-landers-spacex-just-launched-toward-the-moon>

<https://petapixel.com/2025/02/06/blue-ghost-spacecraft-captures-epic-video-of-earth-on-its-way-to-the-moon/>

What Goes Around Comes Around



Credit: SpaceX

At first, they thought it was an asteroid...

Articles: <https://www.astronomy.com/science/astronomers-just-deleted-an-asteroid-because-it-turned-out-to-be-elon-musks-tesla-roadster/>

<https://www.space.com/the-universe/asteroids/when-is-an-asteroid-not-an-asteroid-when-its-elon-musks-tesla-roadster-it-turns-out>

<https://www.forbes.com/sites/lesliekatz/2025/01/28/asteroid-nope-its-elon-musks-tesla-roadster-cruising-through-space/>

That's All, Folks



Credit: SpaceX