

# New US rocket Vulcan Centaur set to launch on December 24

October 25 2023

---



Side view of the crater Moltke taken from Apollo 10. Credit: Public Domain

A new US rocket, United Launch Alliance (ULA)'s Vulcan Centaur, is to make its maiden flight on Christmas Eve with a payload that includes a private lunar lander.

The mission, called Cert-1, will also carry on board the cremated remains of several people associated with the original "Star Trek" series, including creator Gene Roddenberry and cast member Nichelle Nichols, who portrayed the character Uhura. Roddenberry's ashes have been launched into orbit before.

Liftoff is scheduled for December 24 from the US Space Force launch base at Cape Canaveral, Florida, United Launch Alliance (ULA) announced Tuesday evening.

"We'll be launching several times in '24," promised ULA's CEO Tory Bruno in an interview on CNBC. "When we get about halfway through '25, we'll be launching every two weeks, so you'll see a steady ramp up."

ULA describes the Vulcan Centaur as its "next generation" rocket that will provide higher performance and greater affordability than its current lineup, which includes the Atlas V.

The Christmas Eve launch date was decided because of orbital mechanics and the availability of NASA's Deep Space Network for communications, with backup dates in the days that follow.

ULA has already signed a deal with Amazon for Vulcan Centaur to transport a large portion of the online shopping giant's forthcoming

internet satellite constellation, called Kuiper.

The [lunar lander](#), named Peregrine, was developed by Astrobotic and could become the first American robot on the [moon](#) since the Apollo program ended in 1972.

Pittsburgh-based Astrobotic received funding from NASA for this mission, which will carry out research ahead of the space agency's Artemis flights to return humans to the moon this decade.

But NASA has also signed a contract with Intuitive Machines, whose lander is due to take off aboard a SpaceX Falcon 9 rocket in mid-November.

Japanese start-up ispace attempted to become the first private company to land on the moon this spring, but the mission ended in a crash.

India successfully touched down on the moon in August during a government mission. The Japanese space agency Jaxa also launched a [mission](#) to the moon in September, with the lander to attempt touchdown in early 2024.

© 2023 AFP

Citation: New US rocket Vulcan Centaur set to launch on December 24 (2023, October 25) retrieved 3 May 2024 from <https://phys.org/news/2023-10-rocket-vulcan-centaur-december.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.