

Two New Private Spacecraft Launch to the Moon

今回は、月を舞台にした最新ニュースです。アメリカ・フロリダ州にあるケネディ宇宙センターから2機の民間宇宙船が月に向けて打ち上げられました。ちなみに、ロケットを打ち上げるは英語で「launch」、宇宙船を「spacecraft」と言います。私たちにとって宇宙は遠いところにある未知の世界ですが、将来もっと身近に月や宇宙を旅行できる日が来るかもしれませんね。本文を読んで、レッスンで感想を共有してみましょう。



1. Article

Read the following article aloud.

Two private spacecraft are on their way to the moon to carry out separate missions.

The landers **launched** January 15 from the American government's Kennedy Space Center in Florida. The private company SpaceX used its Falcon 9 launch vehicle to fly the landers into space. The two separated from Falcon 9 about one hour into the flight.

Mission leaders said the launch went exactly as planned, with no problems reported. The trip to the moon will take some time. One spacecraft is expected to land on the **lunar** surface in early March, while the other should **touch down** in late May or early June. In February 2024, the first private spacecraft completed the first U.S. moon landing in more than 50 years.

The lander, called Odysseus, was developed by the Texas-based company Intuitive Machines. The spacecraft experienced some technical problems but was able to carry out several science experiments before powering down permanently on the moon in late March.

For this current mission, Texas-based Firefly Aerospace developed Blue Ghost, one of the two landers launched. The other, named Resilience, belongs to Japanese company ispace. Both are designed to collect data and materials to support several planned moon missions – some including astronauts – in coming years.

The Blue Ghost lander is targeting a landing site near a volcanic structure called Mons Latreille. It is a 480-kilometer **basin** that sits in the northeast quarter of the near side of the moon.

The American space agency NASA says the 2-meter-tall Blue Ghost is carrying 10 NASA science and technology instruments. They aim to “gather valuable scientific data studying Earth’s nearest neighbor,” the agency said.

NASA’s Artemis program aims to send astronauts to the moon for the first time since the Apollo 17 mission in 1972. The next planned flight in that program is Artemis II, which is set to launch in April 2026. In that mission, four astronauts will fly NASA’s Orion spacecraft more than 400,000 kilometers on a trip around the moon.

Nicola Fox is the associate administrator for NASA’s Science Mission Directorate in Washington D.C. She said in a statement the agency’s cooperation with private companies is “a critical part of bringing humanity back to the moon.”

Fox added that NASA chose the new experiments partly because of information learned from NASA’s Apollo space program, which began in the 1960s. She said the current mission seeks to ensure “the safety and health of our future science instruments, spacecraft, and, most importantly, our astronauts on the lunar surface.”

Blue Ghost’s equipment includes a tool to collect dirt and another to dig a hole for measuring temperatures below the lunar surface. The spacecraft is also carrying a **device** built to measure light reflections to be used with lasers to better measure the distance between Earth and the moon.

In addition, Blue Ghost is carrying instruments to examine the structure and density of areas beneath the lunar surface. Other equipment will seek to capture X-ray images of the edge of Earth’s magnetic field.

The ispace lander Resilience is carrying an exploring vehicle, called a rover, to the moon. The five-kilogram rover is designed to collect lunar soil and other materials from the surface.

Resilience is also carrying equipment and instruments to complete several experiments for Japanese companies and other organizations. One of the experiments will test an electrolysis device designed to separate water into hydrogen and oxygen. Such a device could help future astronauts better use water resources on the moon and produce rocket fuel.

Other experiments set for the Resilience mission include food production tests and the deployment of a “deep space radiation probe.” The instrument is designed to collect detailed measurements of ionizing radiation in space.

NASA has said it is paying \$101 million to Firefly for the mission and another \$44 million for the experiments. Officials from ispace did not report how much its mission would cost.

It is the second moon mission for ispace. During the last one, Japan's space agency JAXA successfully launched its SLIM spacecraft to the moon in January 2024. But the lander touched down imperfectly, causing some communication and power problems.

However, Japanese space officials reported they had stayed in communication with SLIM through late April. During this time, they said the spacecraft was able to collect valuable data about the landing and surrounding area.

I'm Bryan Lynn.

Bryan Lynn wrote this story for VOA Learning English, based on reports from NASA, The Associated Press and Agence France-Press

Source: **Two New Private Spacecraft Launch to the Moon**

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2. Key phrases and vocabulary

First repeat after your tutor and then read aloud by yourself.

1. launch (v.) to send into space

Hayabusa 2 was launched on December 3, 2014.

2. lunar (adj.) related to a moon or the moon

In many places, the lunar landscape is very dry, dusty, and rocky.

3. touch down (v.) to land on the surface of a planet or other space object

The Apollo 11 spacecraft Eagle touched down on the moon on July 20, 1969.

4. basin (n.) a large, bowl-shaped area of land

The town was located on the edge of a river basin.

5. device (n.) a machine with a special purpose

A radar is a device that sends out radio waves to measure distances.

3. Questions

Read the questions aloud and answer them.

1. What is NASA's main reason for working with private companies to send these experiments to the moon?
2. What kinds of equipment and instruments is Blue Ghost carrying?
3. What kinds of equipment and instruments is Resilience carrying?
4. What space missions, past, present, or future, are you interested in?
5. In what ways do we benefit from space exploration?