



# A Short History of Spacecraft Landings on the Moon

今回は、月面への着陸に挑んできた国々の記録を振り返る記事です。1966年にソ連の探査機が月に着陸して以来、アメリカ、中国、インド、日本などが無人・有人を問わず数々の試みを行ってきました。文中の句動詞「touch down」は飛行機や宇宙船が着地するときに使われ、「We touched down safely. (無事に着陸しました)」や「The spacecraft touched down on the Moon(探査機が月に着陸した)」のように表現されます。今も続く月探査の動き、あなたはそれにどんな価値があると思いますか?講師と話してみましょう。



### 1 Article

Read the following article aloud.

Many years have passed since the first spacecraft landed on the moon in 1966. From then until now, there have been many additional <u>attempts</u> with some succeeding and others failing. Here is a short history of some of these attempts.

#### **First victories**

The Soviet Union's Luna 9 spacecraft was the first to land on the moon. It <u>touched down</u> on the <u>lunar</u> surface in 1966. The landing came after several other Soviet spacecraft either did not reach the moon or crashed on the surface.

The American space agency NASA says Luna 9 was the first spacecraft to carry out a soft landing on the moon. It was also the first to send "photographic data" from the moon's surface to Earth. Luna 9's landing proved "the lunar surface could support the weight of a lander and that an object would not sink into a loose layer of dust as some models predicted," NASA said.





In May 1966, the United States followed with its Surveyor 1 <u>mission</u>. NASA describes this effort as "the first of a series of seven robotic spacecraft sent to the moon to gather data in preparation for NASA's Apollo missions." The successful soft landing of Surveyor 1 "was one of the great successes of NASA's early lunar and interplanetary program."

Both the U.S. and Soviet Union had other successful robotic landings. Next, the countries aimed to be the first to land humans on the moon.

#### **Apollo program**

In 1969, NASA successfully landed Apollo 11 astronauts Neil Armstrong and Buzz Aldrin on the moon. The U.S. Apollo program sent 12 astronauts to explore the moon over six missions. Apollo 17 was the last in 1972. The U.S. is still the only country to land humans on the moon. NASA officials say the agency's Artemis program aims to return astronauts to the lunar surface possibly by the end of 2026.

#### China expands space efforts

In 2013, China became the third country to successfully land a spacecraft on the moon. China landed an exploring vehicle, or rover named Yutu that year. China followed with the Yutu-2 rover in 2019, this time touching down on the moon's unexplored far side.

In 2020, China successfully returned samples of rock and dirt collected by the rovers. The mission returned about 1.7 kilograms of lunar material collected from the near side of the moon. Then in 2024, another mission returned rock and soil samples from the less explored far side of the moon. China has said it aims to land its astronauts on the moon by 2030.

#### Russian landing failure

In 2023, Russia tried its first moon landing in nearly 50 years. The Luna 25 spacecraft was attempting to land near the lunar south pole. But it is believed to have crash landed on the moon's surface. The country's last effort before that, Luna 24 in 1976, landed successfully and returned moon rocks to Earth.

#### India succeeds on second attempt

After its first lander crashed into the moon in 2019, India made its second attempt in 2023. The country successfully landed its Chandrayaan-3 spacecraft on the lunar surface. The mission made India the fourth nation to complete a moon landing.

#### Japan lands sideways

In January 2024, Japan became the fifth country to successfully land a spacecraft on the moon. But the SLIM spacecraft landed upside down. This caused some power and communication problems, but the lander was able to <a href="https://example.com/operate">operate</a> for a short time.

The Associated Press reported this story. Bryan Lynn adapted the report for VOA Learning English with additional information from NASA.





## Key phrases and vocabulary

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

1. attempt (n.) a situation in which someone tries to reach a goal or do a difficult task

My friend Katie is going to make an <u>attempt</u> to sail across the Pacific solo.

2. touch down (v.) to land (used for aircraft and spacecraft)

We touched down at Heathrow Airport at noon.

3. lunar (adj.) related to the Moon

NASA is planning its next **lunar** landing at the south pole.

4. mission (n.) a major goal made up of carefully planned steps (often used in space exploration, rescue, and the military)

JAXA's MMX mission will travel to Phobos, a moon of Mars, and bring a sample to Earth.

5. operate (v.) to work; to function

This camera can **operate** in very cold temperatures.

## **Questions**

Read the questions aloud and answer them.

- How many countries have landed on the Moon? Which ones (try not to look back)?
- 2. What did China accomplish in its lunar missions?
- 3. According to the article, which countries have plans to send people to the Moon in the near future?
- 4. What are the benefits of more having robotic missions to the Moon? What are the benefits of having more human missions to the Moon?
- 5. Do you feel it is worth the effort, money, and time to return to the Moon, either with robotic missions, human missions, or both?