

ispace Announces Earliest Scheduled Lunar Landing Date for HAKUTO-R Mission 1

Historic Landing Set for April 25, 2023 (UTC)

TOKYO—April 12, 2023—ispace, inc., (ispace) a global lunar exploration company, announced today that the earliest scheduled landing date for the HAKUTO-R Mission 1 Lunar Lander is set for Tuesday, April 25, 2023, at 16:40 (UTC).

WHAT: Historic Landing Attempt by HAKUTO-R Mission 1 Lunar Lander

WHEN: **Tuesday, April 25, 2023, 16:40 UTC**
Tuesday, April 25, 2023, 12:40 EST
Wednesday, April 26, 2023, 1:40 JST

**The above dates and times are subject to change depending on operational conditions.*

As of April 12, 2023, the Mission 1 lander is orbiting the Moon in an elliptical orbit with an altitude of about 100 km at the perilune (periapsis) and about 2300 km at the apolune (apoapsis). After insertion into lunar orbit, the lander's onboard camera successfully photographed and acquired images of the Moon.



This image was captured by ispace cameras on March 26, 2023, at an altitude of about 2,000 km from the Moon. The image shows the eastern rim of the Moon, and craters Petavius, Vendelinus, and Langrenus.

The lander is scheduled to perform multiple orbital control maneuvers to reach 100 km circular orbit around the Moon to complete Success 8 of the Mission 1 Milestones.

At approximately 15:40 on April 25, 2023, (UTC), the lander is scheduled to begin the landing sequence from the 100 km altitude orbit. During the sequence, the lander will perform a braking burn, firing its main propulsion system to decelerate from orbit. Utilizing a series of pre-set commands, the lander will adjust its attitude and reduce velocity in order to make a soft landing on the lunar surface. The process will take approximately one hour.

Should conditions change, there are three alternative landing sites and depending on the site, the landing date may change. Alternative landing dates, depending on the operational status, are April 26, May 1, and May 3, 2023.

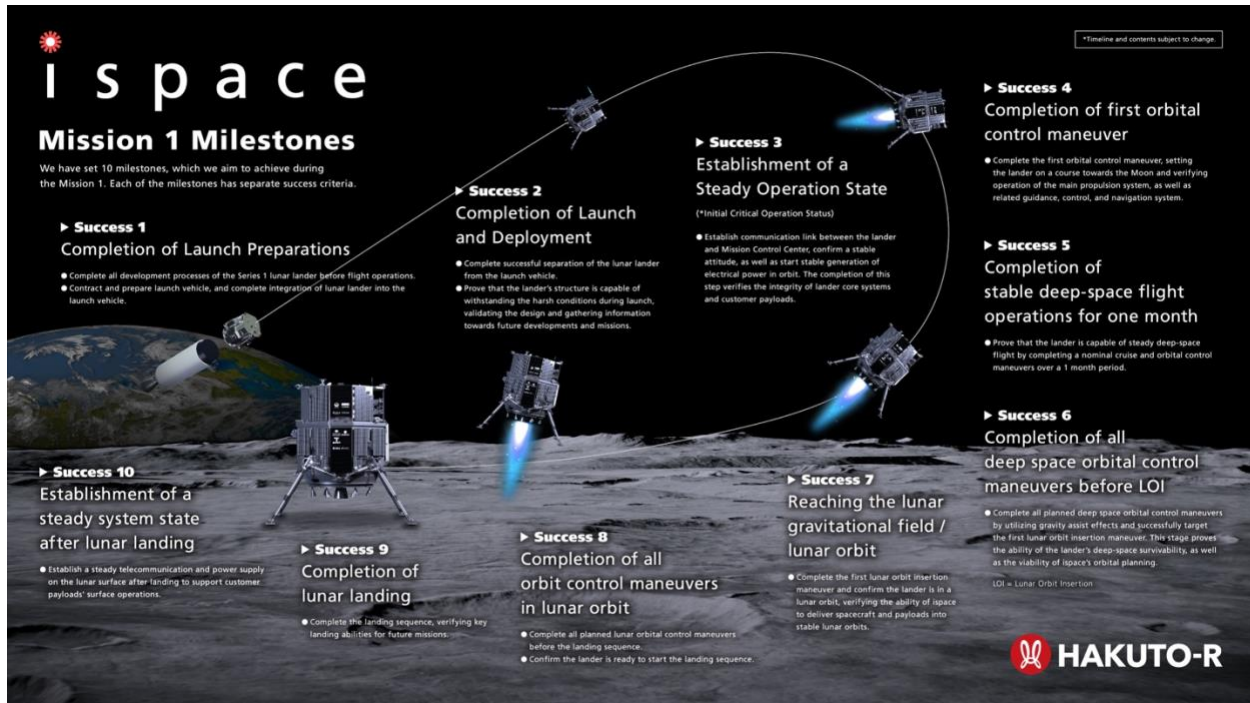
“To all of our supporters and everyone who has been looking forward to the day when we will land on the Moon, I am pleased to announce the scheduled landing date for Mission 1,” said Takeshi Hakamada, Founder and CEO of ispace. “What we have accomplished so far is already a great achievement, and we are already applying lessons learned from this flight to our future missions. I would like to once again express my heartfelt thanks to those who have worked so hard on this mission, including the engineers who are carrying out the long-term operations since our launch back in December. The stage is set. I am looking forward to witnessing this historic day, marking the beginning of a new era of commercial lunar missions.”

The completion of all lunar orbital maneuvers prior to the beginning of the landing sequence—Success 8 of the Mission 1 Success Milestones—is scheduled to be announced in late-April 2023.

A live-streaming broadcast from Tokyo is being planned for the landing day. More details will be announced once they become available.

Mission 1 Milestones

For Mission 1, ispace has set 10 milestones between launch and landing, and aims to achieve the success criteria established for each of these milestones. Recognizing the possibility of an anomaly during the mission, the results will be weighed and evaluated against the criteria and incorporated into future missions already in development between now and 2025. Mission 2 and Mission 3, which also will contribute to NASA’s Artemis Program, will further improve the maturity of ispace’s technology and business model. Future announcements on progress of milestone achievement are expected to be released once attained.



#	Milestone	Success Criteria per Milestone
1 Completed	Completion of Launch Preparations	<ul style="list-style-type: none"> ● Complete all development processes of the Series 1 lunar lander before flight operations. ● Contract and prepare launch vehicle, and complete integration of lunar lander into the launch vehicle.
2 Completed	Completion of Launch and Deployment	<ul style="list-style-type: none"> ● Complete successful separation of the lunar lander from the launch vehicle. ● Prove that the lander's structure is capable of withstanding the harsh conditions during launch, validating the design and gathering information towards future developments and missions.
3 Completed	Establishment of a Steady Operation State (*Initial Critical Operation Status)	<ul style="list-style-type: none"> ● Establish communication link between the lander and Mission Control Center, confirm a stable attitude, as well as start stable generation of electrical power in orbit. The completion of this step verifies the integrity of lander core systems and customer payloads.
4 Completed	Completion of first orbital control maneuver	<ul style="list-style-type: none"> ● Complete the first orbital control maneuver, setting the lander on a course towards the Moon and verifying operation of the main propulsion system, as well as related guidance, control, and navigation system.
5 Completed	Completion of stable deep-space flight operations for one month	<ul style="list-style-type: none"> ● Prove that the lander is capable of steady deep-space flight by completing a nominal cruise and orbital control maneuvers over a 1 month period.
6 Completed	Completion of all deep space orbital control maneuvers before LOI	<ul style="list-style-type: none"> ● Complete all planned deep space orbital control maneuvers by utilizing gravity assist effects and successfully target the 1st lunar orbit insertion maneuver. This stage proves the ability of the lander's deep-space survivability, as well as the viability of ispace's orbital planning.
7 Completed	Reaching the lunar gravitational	<ul style="list-style-type: none"> ● Complete the first lunar orbit insertion maneuver and confirm the lander is in a lunar orbit, verifying the ability of ispace to deliver spacecraft and payloads into stable lunar orbits.

	field / lunar orbit	
8	Completion of all orbit control maneuvers in lunar orbit	<ul style="list-style-type: none"> • Complete all planned lunar orbital control maneuvers before the landing sequence. • Confirm the lander is ready to start the landing sequence.
9	Completion of lunar landing	<ul style="list-style-type: none"> • Complete the landing sequences, verifying key landing abilities for future missions.
10	Establishment of a steady system state after lunar landing	<ul style="list-style-type: none"> • Establish a steady telecommunication and power supply on the lunar surface after landing to support customer payloads' surface operations.

About ispace, inc.

ispace, a global lunar resource development company with the vision, “Expand our Planet. Expand our Future.”, specializes in designing and building lunar landers and rovers. ispace aims to extend the sphere of human life into space and create a sustainable world by providing high-frequency, low-cost transportation services to the Moon. The company has offices in Japan, Luxembourg, and the United States with more than 200 employees worldwide. ispace U.S. is part of a team led by Draper, which was awarded a NASA Commercial Lunar Payload Services (CLPS) Program contract to land on the far side of the Moon by 2025. Both ispace, and ispace EU were awarded contracts to collect and transfer ownership of lunar regolith to NASA, and ispace EU was selected by ESA to be part of the Science Team for PROSPECT, a program which seeks to extract water on the Moon.

Established in 2010, ispace operated “HAKUTO”, which was one of five finalist teams in the Google Lunar XPRIZE race. The company’s first mission as part of its HAKUTO-R lunar exploration program launched on Dec. 11, 2022, from the United States on a SpaceX Falcon 9 rocket and is currently expected to land on the lunar surface on April 25, 2023. Subsequent missions are in development with launches expected in 2024 and 2025. ispace has also launched a lunar data business concept to support new customers as a gateway to conduct business on the Moon.

For more information, visit: www.ispace-inc.com; Follow us on Twitter: [@ispace_inc](https://twitter.com/ispace_inc).

###