

# The Korea Times

\*\*\* CITY EDITION

Established 1950, NO. 22476

www.koreatimes.co.kr

TUESDAY, OCTOBER 31, 2023

Dongwha

www.dongwha.com



## 14 Society

Adoptees' journey to 'homeland' in search of origin, identity

Nationwide 24-hour reservation  
**1588-2001**

Available in flight  
**KOREAN AIR**

## Korea to establish roadmap for Mars exploration

By Baek Byung-yeul  
baekby@koreatimes.co.kr

Korea has taken steps to establish a roadmap for Mars exploration, such as developing a spacecraft as part of President Yoon Suk Yeol's ambitious vision to land on the planet by 2045 and to keep pace with powerhouse space exploring nations, the science ministry said, Monday.

The Ministry of Science and ICT held a space exploration symposium with government officials and space experts at the Satellite Technology Research Lab of the Korea Advanced Institute of Science and Technology (KAIST), to discuss plans to develop key technologies and prepare an implementation strategy.

"The symposium focused on dealing with the theme of the value and strategy of Korea's Mars exploration following previous discussions on the value of space exploration in August and the need for and strate-

gy for lunar exploration in September," a spokesperson of the science ministry said.

In November, 2022, Yoon announced that Korea will take a leap forward to become one of the space powerhouse nation by around 2045. To that end, the country aims to send a spacecraft to the moon by 2032 for resource mining and land on Mars by 2045.

At the symposium, around 20 experts argued that Korea should also establish a roadmap, as the United States, China and Japan are planning and implementing various Mars exploration missions with the goal of building a long-term human settlement there.

Bang Hyo-choong, a professor of the Department of Aerospace Engineering at KAIST, introduced how space powerhouse nations are preparing for the plan, such as the Moon to Mars plan of the U.S. and Japan's plan to explore Mars' moon Phobos.

The professor emphasized that "Korea should also establish a roadmap that clearly sets out the core goals by referring to the ways major countries have developed space exploration missions, and should develop a strategy and implementation plan for core technology development."

The U.S., the leading country in space exploration, has been promoting Mars exploration missions continuously, from the Mariner program in the 1960s to the Perseverance, a car-sized Mars rover launched in 2020.

Recently, the U.S. is pursuing the Moon to Mars plan, which aims to establish a human outpost on the moon through the Artemis plan, and then conduct a human Mars exploration mission based on it. In addition, China and the United Arab Emirates launched Mars probes in July 2020.

Kim Joo-hyeon, a researcher at the Korea Aerospace Research Institute

(KARI), compared the space exploration goals of the U.S. and Europe and stressed the importance of setting scientific mission goals. The researcher suggested that in addition to preparing for the development of Korea's Mars exploration mission goals, the country needs to focus on cultivating future professionals to develop a sustainable space exploration missions.

After the presentations by the participants, experts discussed the goals of Korea's Mars exploration mission goals, the need for such a plan, and the development of a specific strategy such as building a lander and an orbiter.

"Now is the time for Korea to prepare a systematic strategy for Mars exploration in order to expand our activities into deeper space beyond the moon and prepare for a full-fledged future space-based society through space exploration," Cho Sun-hak, director general of the Space Policy and Nuclear Energy Bureau at the science ministry, said.

## North Korea's next satellite launch unlikely to make deadline

By Jeong Min-ho  
jeongmin@koreatimes.co.kr

After failing to put a reconnaissance satellite into space two months ago for the second time this year, North Korea immediately vowed to give it a third try by the end of October.

But analysts and government officials said on Monday that North Korea will likely miss its own deadline, amid speculation that its collaboration with the Kremlin may be the reason for the delay after Russian President Vladimir Putin declared his open support for the effort last month.

Experts contacted by The Korea Times said Pyongyang's caution suggests two things: major political pressure on North Korean officials and a possibility of Russian technicians providing support as part of their secret diplomatic deal. But the experts believe the extent of Russia's help will be limited because of their mutual mistrust.

"The failures in two previous attempts have significantly raised the political stakes. This time, North Korea has to succeed. That pressure must be enormous," said Park Wongsu, a professor of North Korean studies at Ewha Womans University. "Between trying again before

the deadline and increasing the probability of success, North Korea appears to have chosen the latter."

After the second failure, said to have been caused by an error in the "emergency blasting system," North Korea claimed it was "not a big issue in terms of the reliability of cascade engines and the system," showing its determination to push ahead with the project its leader Kim Jong-un labeled as a top priority.

"At the time, North Korea seemed confident that it would be able to fix the error on its own. But recently, signs have shown that it would rather work with Russia on the project," said Chung Sung-yoon, a researcher

at the Korea Institute for National Unification, a state-funded think tank. "But the Kremlin won't provide key technologies unless it is necessary. Even if the Kremlin provides some support, it is expected to do so in accordance at its own pace. With the war in Ukraine and the international community critical of giving space technology to North Korea, Russian leaders have many factors to consider."

In desperation need of North Korean ammunition for its troops in Ukraine, Russia, for now, would give signs that North Korea can gain much from the two countries' partnership, but Russia's depen-

dence will likely wane over time, Chung said.

"It's possible that North Korea will never receive the core technology it needs," he added.

Park reflected that the distrust between the nations is mutual.

"Russia could certainly advise North Korea in terms of making improvements on the project. But the extent of its help would be limited as the rocket cannot be redesigned at this point," he said. "Moreover, for Russia to know the fundamental problems, it needs to review all the technical details of the project, which North Korea won't disclose."



North Korea's Chollima-1 rocket, carrying a spy satellite, takes off from an undisclosed location in the country, May 31, in this photo released the following day by the North's official Korean Central News Agency. **Yonhap**