

The Korea Times

Established 1950, NO. 22367

www.koreatimes.co.kr

FRIDAY-SUNDAY, MAY 26-28, 2023

*** CITY EDITION

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Nuri succeeds in putting 8 satellites into space

3rd launch of locally-developed rocket sets new milestone for Korea

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Korea succeeded in launching a locally-developed space rocket, Thursday, placing eight satellites into Earth orbit to mark another milestone in the country's space program and solidify the nation's position as an aerospace powerhouse.

The science ministry said Thursday that the Nuri rocket lifted off successfully from Naro Space Center in Goheung, South Jeolla Province, and placed eight satellites, including its main payload, the NEXTSAT-2 satellite, in orbit 550 kilometers above the Earth.

"Korea Aerospace Research Institute (KARI) confirmed that the Nuri rocket successfully separated and released the second next-generation small satellite, the NEXTSAT-2, on its target orbit based on the initial analysis of the Nuri's telemetry data containing the launch vehicle's flight information," Lee Jong-ho, minister of science and ICT, said at Naro Space Center.

The Nuri, also known as Korean Space Launch Vehicle II (KSLV II), lifted off at 6:24 p.m., completing the separation of the first and second stages and the fairing to cruise smoothly into space. After reaching an altitude of 550 kilometers, the Nuri began its mission of releasing the eight satellites.

Starting with the NEXTSAT-2, the eight satellites were separated at 20-second intervals. After all eight satellites were separated, the Nuri ended its flight 1,138 seconds or 18 minutes and 58 seconds after the launch.

"At around 7:07 p.m., it was confirmed that the NEXTSAT-2's signal was received from the King Sejong Station in Antarctica. On Friday, we will check the status of the satellite in detail through two-way communication with the ground station at KAIST in Daejeon four times from around 5:05 a.m. to 7:51 p.m.," the minister said.

President Yoon Suk Yeol also con-



The Nuri space launch vehicle blasts off from Naro Space Center in Goheung, South Jeolla Province, Thursday, to place satellites into orbit 550 kilometers above the Earth.

gratulated the Nuri's success, calling it "a splendid achievement that declares Korea's entry into the G7 of space powers."

"The U.S., France, Japan, Russia,

China, and India are the only countries that launched locally-developed satellites into space using their own space vehicles," Yoon said in a statement. "The third launch, which put

eight practical satellites into orbit, is a huge step forward from the second launch, which put one performance verification satellite into orbit. It will change the way the world views



President Yoon Suk Yeol congratulates researchers at the Naro Space Center during a video call after watching the third launch of the Nuri space rocket from the presidential office in Yongseong, Seoul, Thursday.

Courtesy of presidential office

Korea's space science and technology.

The Nuri is a three-stage space launch vehicle measuring 47.2 meters in length, 3.5 meters in diameter and weighing 200 tons. It was supposed to have been launched, Wednesday, but was delayed due to a glitch. The Ministry of Science and ICT and KARI said the delay was caused by a network error that occurred between the launch control computer and the launch pad facility control computer while controlling a low-temperature helium supply valve.

On Thursday morning, Vice Minister of Science and ICT Oh Tae-seog said, "Engineers completed the program fix by 5 a.m. and confirmed that the hardware was fine," adding that they would attempt to launch the Nuri again at 6:24 p.m.

The Nuri attempted its first launch in October, 2021, but ended in partial success because the rocket failed to put a dummy satellite into orbit despite succeeding in reaching a target altitude of 700 kilometers above the Earth.

In its second launch in June, 2022, the Nuri succeeded in deploying a dummy and performance verification satellites at a target altitude of 700 kilometers above the Earth. With the successful launch, Korea became the seventh country in the world to launch a space rocket using domestically developed technology following Russia, the U.S., France, China, Japan

and India and place into orbit a satellite weighing over 1 ton.

The main difference between the last two launches and the latest launch is that the Nuri placed eight satellites into Earth orbit, which will be used for actual scientific missions. The satellites will carry out missions, such as ground observation, space weather observation, space radiation measurements and space environment verification of domestic space technology.

The main satellite, NEXTSAT-2, developed by the Korea Advanced Institute of Science and Technology (KAIST), will conduct observations for two years using a synthetic aperture radar (SAR). It also carried four microsatellites codenamed SNIFE, developed by the Korea Astronomy and Space Science Institute, and three cube satellites developed by private companies.

The success of the third launch is significant in the roadmap of Korea's space development, because the Nuri proved that the country's technology is capable of putting satellites in space, according to, Han Jae-hung, a professor at the Department of Aerospace Engineering at KAIST.

"The success of this launch is significant because it is the first time that satellites with an actual mission have been put into orbit via a launch vehicle made with Korean technology," the professor told The Korea Times.