

The Korea Times

*** CITY EDITION

Established 1950, No. 22558

www.koreatimes.co.kr

FRIDAY-SUNDAY, FEBRUARY 23-25, 2024

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Hanwha Aerospace aims to lead Korea's moon landing in 2032

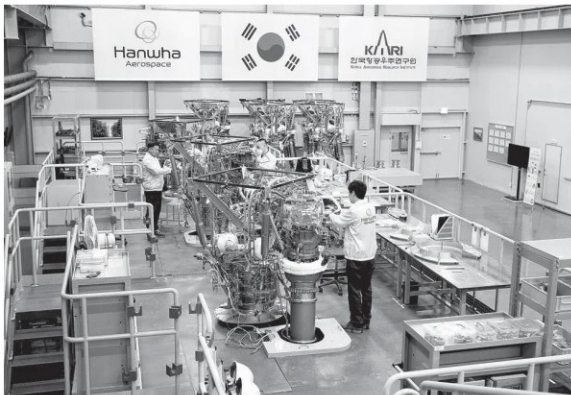
Company pioneers space industry with rocket-to-satellite value chain

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

CHANGWON, South Gyeongsang — Hanwha Aerospace seeks to leverage its business capabilities, such as its space rocket engine production and satellite manufacturing, to participate in the development of the launch vehicle for Korea as it looks to land a space unit on the moon by 2032, the vice president of Hanwha Group said Tuesday.

Hanwha Aerospace wants to be selected as the company that will be in charge of the next-generation launch vehicle project, or KSLV-III, which the Ministry of Science and ICT is pushing forward. The KSLV-III, a follow-up to the Nuri space launch vehicle or KSLV-II, which Korea launched three times last year with two successes, is expected to carry the lunar explorer that Korea plans to launch in 2032.

On Tuesday and Wednesday, Hanwha Aerospace let reporters tour its rocket engine manufacturing factory located in Changwon, South Gyeongsang Province, the earth observation satellite manufacturing site of its satellite subsidiary Satrec Initiative in Daejeon and the satellite ground control facility and the satellite manufacturing facility of Hanwha Sys-



Hanwha Aerospace engineers work on the engine of a Nuri launch vehicle at the company headquarters in Changwon, South Gyeongsang Province, in this photo provided by the company, Thursday.

Courtesy of Hanwha Aerospace

tems in Yongin, Gyeonggi Province.

Hanwha Aerospace, which has gained experience in the space industry by taking charge of the system integration project of the Nuri space launch vehicle, has secured the entire value chain in the space industry, from engine manufacturing to satellite production and operations in Korea. Based on this capacity, the company ambitiously said that it will lead the country's space industry to the next stage.

"In 2021, Hanwha Group launched

Space Hub, a space business consultative body that oversees space businesses being conducted by Hanwha affiliates. So far, it has invested a total of 894 billion won (\$673 million) and is focusing on investing in space businesses," Lee Joon-won, senior vice president and head of the space business group at Hanwha Aerospace, said in a press conference at the company's headquarters in Changwon, Tuesday.

"Based on the liquid rocket engine manufacturing technology and the

experience it earned by joining the Nuri project, we will lead the commercialization of launch services," the space business head said.

One of Hanwha Aerospace's core competencies as a space company is that it has engine technology, having successfully produced all 46 Nuri engines. Since 1979, the company has manufactured various engines mounted on aircraft, helicopters, ships and launch vehicles. The detailed design of the aero engine, selection of raw



Lee Joon-won, senior vice president and head of the space business group at Hanwha Aerospace, speaks during a press briefing at the company headquarters in Changwon, South Gyeongsang Province, Tuesday.

Courtesy of Hanwha Aerospace

materials and manufacturing technology were applied to the Nuri engine manufacturing technology.

Currently, Hanwha Aerospace is in charge of launching the Nuri launch vehicle until 2027. The company plans to continuously expand the demand for artificial satellites to be launched by the government through this launch service.

"The goal is to create continuous demand so that the partner companies that participated in the development of the Nuri can grow in the country's space ecosystem," Lee said.

In Daejeon, Satrec Initiative, a company whose largest shareholder is Hanwha Aerospace, is manufacturing SpaceEye-T, which has the world's highest resolution imaging system among commercial earth

observation satellites.

SpaceEye-T is a satellite capable of providing a resolution of 30 centimeters per pixel. Satrec Initiative is the only company in Korea that exports satellite. Starting with the export of earth observation satellites in 2009, it has exported seven satellites and five earth observation payloads.

"Satrec Initiative designs, manufactures and tests high-quality satellites to reduce costs and enhance product competitiveness. We plan to continue supplying services based on ultra-high-resolution satellite images led to the global market by launching SpaceEye-T early next year," a company spokesperson said.

In Yongin, on the outskirts of Seoul, Hanwha Systems, an affiliate of Hanwha Aerospace, operates a control room that controls the orbit of small synthetic aperture radar (SAR) satellites and receives images sent by satellites.

The company plans to create more business models by automatically integrating and analyzing satellite image information for environmental monitoring through high-resolution satellite image analysis for the business-to-government and business-to-business markets.

In addition, Hanwha Systems also manufactures electro-optical (EO), infrared radiation (IR), and SAR payloads in the satellite manufacturing facility. "The small SAR satellite, an Earth observation satellite developed with domestic technology and successfully launched last year, is also being manufactured here," the company said.