

## Dedicated Batteries Developed by GS Yuasa Installed in H3 Launch Vehicle

GS Yuasa Corporation (Tokyo Stock Exchange: 6674; "GS Yuasa") today announced that the batteries developed and manufactured by GS Yuasa Group company GS Yuasa Technology Ltd. ("GYT") have been installed in the H3 Launch Vehicle (H3 TF1: Test Flight No.1) developed by Mitsubishi Heavy Industries, Ltd. (Tokyo Stock Exchange: 7011; "MHI") and the Japan Aerospace Exploration Agency ("JAXA") for a planned launch from the Tanegashima Space Center in mid-February, 2023.

The H3 Launch Vehicle is a next-generation large rocket that has been developed as the successor to the existing H-IIA and H-IIB Launch Vehicles with a core focus on user friendliness so that Japan can continue to maintain its access to space. GYT commenced the development of two types of lithium-ion batteries, as well as thermal batteries, for the H3 Launch Vehicle in 2016 with a view to their installation in the TF1. They were delivered to MHI in 2020. The lithium-ion batteries will power the rocket's measuring equipment, while the thermal batteries will supply power to its attitude control equipment.

GYT's lithium-ion batteries for use in space\*1 have also been installed in the Daichi-3 (ALOS-3)\*2, an advanced land observation satellite and the payload of TF1. The batteries will supply power to the satellite when its solar panels are unable to generate power in the shadow of the earth.

GYT has been developing and supplying batteries for use in space from the formative years of Japan's space development program in the 1970s. Since then, and up to the present day, it has contributed to space development projects mainly by having its silver oxide batteries, thermal batteries, lithium-ion batteries, and other products installed in Japan's solid fuel and liquid fuel rockets, as well as in satellites made in Japan and overseas.

The GS Yuasa Group will continue to contribute to the advancement of society by installing products of the highest quality and performance in satellites that play a key role in the building of social infrastructure, as well as in the rockets that transport them into space.

\*1 High-performance lithium-ion batteries for use in space developed under contract for JAXA and registered as JAXA components. Components and devices used by JAXA's R&D departments for installation in satellites are recorded and disclosed in a JAXA database. The batteries have been used by Mitsubishi Electric Corporation (Tokyo Stock Exchange: 6503), the manufacturer of the Daichi-3 satellite.

\*2 Please visit the JAXA website for more details. https://global.jaxa.jp/projects/sat/alos3/

## Photos:

1. H3 Launch Vehicle (Source: JAXA)



2. Lithium-ion batteries for the H3 Launch Vehicle



3. Daichi-3 advanced land observation satellite (Source: JAXA)



4. Lithium-ion batteries (cells) for use in space

