



**GS Yuasa's Lithium-ion Cells to Be Delivered to the International Space Station for Third Time**  
**- GS Yuasa's cells also contributing to ISS resupply missions -**

GS Yuasa Corporation (Tokyo Stock Exchange: 6674; "GS Yuasa") announced that the lithium-ion cells for the International Space Station ("ISS"), manufactured by group company GS Yuasa Technology Ltd. ("GYT"), have been loaded on to H-II Transfer Vehicle ("HTV") "KOUNOTORI" 8 by the Japan Aerospace Exploration Agency ("JAXA"). The HTV is scheduled to be launched on September 11 in H-IIB Rocket No. 8 by Mitsubishi Heavy Industries, Ltd. ("MHI") from the Tanegashima Space Center.

JAXA selected GYT's lithium-ion cells for use in new-generation ISS batteries in 2012. The batteries have been delivered to the ISS twice since then (in Dec. 2016 and Sep. 2018), and September 11th's delivery will be the third. A total of 24 new-generation lithium-ion batteries will be delivered to the ISS in four separate batches to replace 48 older batteries that use nickel-metal hydride cells. The replacement of the batteries will be carried out by astronauts during space walks outside the space station.

GYT's lithium-ion cells have also been installed in all of the HTVs\*<sup>1</sup> used to transport supplies to the ISS and all of the H-IIB rockets\*<sup>2</sup> used to launch HTVs. The cells have provided high levels of performance during the ISS battery delivery missions even in the harsh environment of space.

GYT has been developing and supplying cells for use in space since the early days of space development in Japan in the 1970s. Since then, GYT has contributed to space development projects with the company's silver oxide cells, thermal cells, lithium-ion cells, and other products being installed in Japanese solid-fuel and liquid-fuel rockets, and in satellites produced in Japan and elsewhere.

GS Yuasa will continue to contribute to the development of society by creating products with the highest standards of performance and quality for installation in satellites that play crucial roles in the building of societal infrastructure.

\*1 The lithium-ion cells (LMG100 and LMG200) installed on the HTV have been approved by Mitsubishi Electric Corporation, the company responsible for HTV power modules.

\*2 GYT supplies specially developed lithium-ion cells for rockets to MHI, the provider of H-IIA and H-IIB rocket launch and transportation services.

[Specifications of the lithium-ion cells for ISS]

Nominal voltage (V)	3.7
Nominal capacity (Ah)	148
Dimensions * <sup>3</sup> (mm)	W130×D50×H263
Mass (g)	3,530

\*<sup>3</sup> H does not include stud bolt parts.

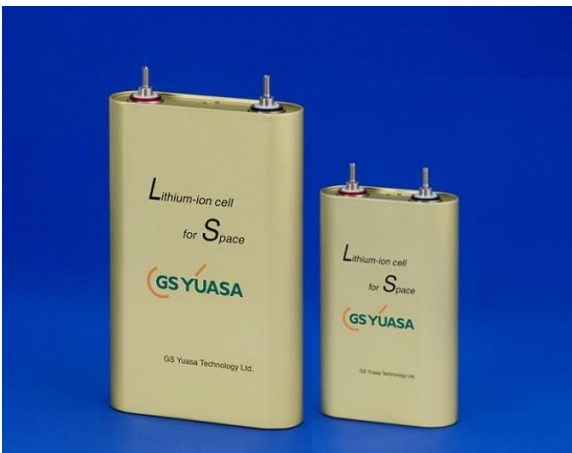
1. Lithium-ion cell for ISS



2. Lithium-ion cell for rockets



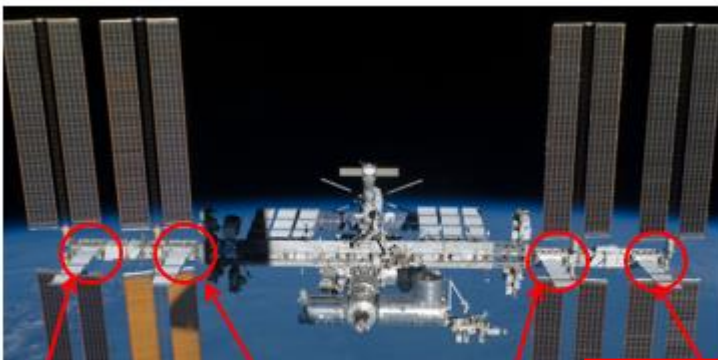
3. Lithium-ion cells for HTVs



4. An astronaut installing a new-generation battery during a space walk (© JAXA/Roscosmos)



5. International Space Station (©JAXA)



S6 truss (replacement batteries to be delivered by HTV9)	S4 truss (replacement batteries delivered by HTV6)	P4 truss (replacement batteries delivered by HTV7)	P6 truss (replacement batteries to be delivered by HTV8)
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Location of P6 truss, where older batteries will be replaced with those delivered by HTV8