

Japan Item 9– “Recent developments in global navigation satellite systems”

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Mr. Chair, Distinguished Delegates,

On behalf of the Japanese delegation, I am pleased to present recent developments in Japan on Global Navigation Satellite Systems (GNSS).

Mr. Chair,

Japan has constructed the Quasi-Zenith Satellite System (QZSS), MICHIBIKI, which is composed of four satellites (three IGSO and one GEO), which became fully operational on November 1, 2018. The QZS-1R and successor to the first QZS satellite, was launched in October 2021 and became operational in March of last year.

The current four-satellite constellation provides three types of services. The first is a GPS complementary service transmitting ranging signals from satellites. QZSS ranging signals have the highest interoperability with GPS signals. Secondly, GNSS augmentation services can offer High Accuracy Service by providing error corrections *via* QZSS. Thirdly, QZSS service supports disaster mitigation and relief operations through a messaging function.

Japan is planning to establish a constellation of seven satellites to maintain and improve capabilities for sustained positioning and planning to launch satellites sequentially from 2024.

Japan is also developing a High Accuracy Augmentation Service known as “MADOCA-PPP”, that trial service began on September 30, 2022, and an Early Warning Service to the Asia Oceania region. MADOCA-PPP and Early Warning Service is expected to begin offering operational services in 2024 and 2025 respectively.

Mr. Chair,

Japan continues to support international outreach activities on GNSS through QZSS. As a GNSS provider participating in the International Committee on GNSS (ICG), we promote interoperability and compatibility among global and regional systems.

The European Union and Japan have been jointly working on the Common Early Warning Service Message Format Working Groups since 2018. In 2022, we agreed on the first version of the alert message format, for implementation in their respective satellite infrastructure.

Japan has also been supporting the Multi-GNSS Asia (MGA) conference since 2010 as an ICG-related activity in the Asia/Oceania region. MGA has been organizing the Rapid Prototype Development (RPD) Challenge, a hands-on Hackathon where participating teams come up with creative ideas utilizing GNSS and build a prototype by the end of the course. In 2022, the Cabinet Office, MGA and the Geo-Informatics and Space Technology Development Agency (GISTDA) in Thailand organized "RPD challenge 2022." The final presentation and demonstration was conducted in early February 2023 in conjunction with the annual MGA conference in Chiang Mai, Thailand.

Mr. Chair,

I would like to conclude this statement by reiterating our commitment to contributing to the benefit of society by promoting GNSS and their applications.

Thank you for your attention.