Japan

Japan, Agenda Item 10– "Recent developments in global navigation satellite systems"

Mr. Chair, Distinguished Delegates,

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

Mr. Chair,

Japan has constructed the Quasi-Zenith Satellite System (QZSS), MICHIBIKI, which is composed of three IGSO and one GEO satellite which became fully operational on November 1, 2018.

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 provide error corrections via QZSS. Thirdly, QZSS service supports disaster mitigation and relief operations through a messaging function.

The QZS-1, the first QZS satellite, has been under operation for more than 10 years beyond its design life. Its successor, the QZS-1R was launched successfully in October 2021. Currently, the QZS-1R is conducting an on-orbit test and is expected to be in service by the end of March 2022.

QZSS was recognized and approved as one of the WWRNS (World-Wide Radio Navigation System) by the IMO (International Maritime Organization) 104 in Oct. 2021. Japan is planning to establish a constellation of seven satellites to maintain and improve capabilities for sustained positioning by around 2024. Japan is also developing a High Accuracy Augmentation Service known as "MADOCA-PPP", and an Early Warning Service to the Asia Oceania region, both of which will begin offering services in around 2024.

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. During the 2021 ICG meeting, we announced India's participation in this working group.

Japan has also been supporting the Multi-GNSS Asia (MGA) conference since 2010 as an ICG-related activity in the Asia/Oceania region. As part of its activity, 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. Last year, MGA and the Geo-Informatics and Space Technology Development Agency (GISTDA) in Thailand launched "RPD challenge 2021." The final presentation and demonstration is scheduled in March 2022 in conjunction with the annual MGA conference in Phuket, 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.