

## **Agenda Item 6: Remote Sensing**

### **Republic of Korea**

#### **UN COPUOS Scientific and Technical Subcommittee, Sixtieth Session February 8, 2023**

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Thank you, Mr. Chair.

Korea would like to first extend its deepest condolences to the victims and families as well as to the government and people of Turkiye and Syria. We sent our rescue team and we are providing our satellites images of the related area through the International Charter. This time, we will also provide our damage analysis results using AI technology.

Remote sensing satellites provide the necessary data to monitor land and ocean, weather, disaster and various resources. The Republic of Korea's 4<sup>th</sup> Basic Plan for Promoting Space Development aims to further develop and operate these satellites, which can create multiple services and industries. We would like to take this opportunity to briefly introduce three types of remote sensing satellites that we operate and reaffirm our commitment to strengthening international cooperation in the related fora.

Firstly, our Multi-Purpose Satellites, remote sensing satellites in Low Earth Orbit (LEO), collect various satellite data through payloads such as electronic optical cameras, imaging radar and infrared cameras. The data are used for land and ocean monitoring, weather, geology, agriculture, water resources and disaster response. Korea has launched five remote sensing satellites in LEO so far since the first launch in 1999. We are developing three new satellites to replace three satellites in operation.

Secondly, Korea is also developing and operating medium-sized satellites based on the 500 kg standard platform for civil purposes. Our National Geographic Information Institute corrects the satellite images and uses them for land use and monitoring, resource management, disaster response and national spatial information. Our expert in the Institute delivered the detailed technical presentation on these medium-sized satellites this morning.

Lastly, Korea operates three geostationary satellites including the weather satellite, Cheollian Satellite 2B launched in 2020. Cheollian Satellite 2B is equipped with the Geostationary Environment Monitoring Spectrometer (GEMS), which enable the hourly monitoring of air pollution levels for almost 20 countries in Asia, as the distinguished delegate of the Philippines mentioned early this session.

Cheollian Satellite 2B is the world's first geostationary satellite dedicated to monitor the air environment and weather hazards, such as fine dust, air pollution, typhoons, torrential rains and yellow dust. Together with TEMPO monitoring North America and Sentinel-4 covering Europe, GEMS monitors the atmospheric gases over Asia. This monitoring enables preemptive responses to climate change and the strengthening of the global monitoring system by monitoring marine ecosystems, such as sea fog and floating algae.

With these satellites under operation and new satellites under development, the Republic of Korea will continue to collaborate with the international community for more comprehensive and near-real-time data. Since last November, Korea Aerospace Research Institute, known as KARI, has been taking the International Charter's lead agency role. We would also like to step up our contribution to global efforts pursued through the Committee on Earth Observation Satellites and the intergovernmental Group on Earth Observations.

I thank you, Mr. Chair.

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