

S6-10

**Observation system simulation experiments for  
a hyperspectral infrared sounder onboard a geostationary satellite**

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The Japan Meteorological Agency (JMA) has been considering the Himawari-8/9 follow-on program since JFY 2018, keeping in mind the CGMS baseline and the Vision for WIGOS in 2040. Particular focus has been placed on the deployment of hyperspectral infrared sounders (HSSs) across the full GEO ring.

HSSs on board geostationary satellites (referred to here as GeoHSSs) are highly regarded as potential payloads for global observation networking (as recommended by the Vision for WIGOS in 2040) and for their capacity to help improve JMA's services in relation to extreme weather monitoring, nowcasting and numerical weather prediction (NWP). As part of JMA's FY 2018 discussions on future geostationary satellite usage, HSS technology was proposed for significant improvement of weather forecasting accuracy. Against this background, JMA has conducted Observation System Simulation Experiment (OSSE) for GeoHSS to assess related effects on NWP.

This presentation reports the results of OSSEs with recent cases.