

## Consideration status of Himawari-8/9 follow-on satellites program

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The Japan Meteorological Agency (JMA) has been operating the Himawari-8 geostationary meteorological satellite since 7 July 2015 (Bessho et al. 2016). The Agency also began the operation of Himawari-9 serving as back-up to Himawari-8 on 10 March 2017, and will keep this combination until the planned switchover in or around 2022. The pair of new-generation satellites will support JMA's stable provision of continuous satellite observation data for the Asia-Oceania region until 2029.

In 2018, JMA launched an international service "HimawariRequest", in collaboration with the Australian Bureau of Meteorology. The service allows NMHS users in Himawari-8/9 coverage area to request Target Area observation of Himawari-8/9. The target of requests are tropical cyclones in South Pacific, bush fires in Australia, volcano in Indonesia and so on. JMA has also started the usage and dissemination of new satellite product as below. The new aerosol optical depth retrieval algorithm developed by JAXA is currently in operational use. The resultant data product is used to monitor aeolian dust events, and assimilated into JMA's aerosol prediction model to issue the aeolian dust information since January 2020.

In Japanese Fiscal Year (FY) 2018, JMA has started feasibility study of the next geostationary satellite program. JMA will pursue a seamless geostationary Earth orbit satellite system, keeping in mind the Coordination Group for Meteorological Satellites baseline, the vision for WIGOS in 2040 and the Implementation Plan of the Basic Plan on Space Policy of Japan. The Plan states "By FY2023 Japan will start manufacturing the Geostationary Meteorological Satellites that will be the successors to Himawari-8 and -9, aiming to put them into operation in around FY2029".

In FY 2019, JMA has conducted a worldwide technology trends survey on future satellites and instruments. The survey includes site visits and face-to-face interviews for potential suppliers in Japan, US, and Europe. In addition, a hyperspectral infrared sounder is one of the candidates for instruments considered to be on board the next satellite. To assess its impact on numerical weather prediction, JMA has been performing Observing System Simulation Experiment (OSSE) until FY2019.

In this conference, the status of JMA's consideration of the specification of follow-on satellites and their sensors will be presented. Himawari series satellites have been used widely not only in East Asia and Western Pacific regions but also in global, and are recognized as indispensable infrastructure. Positive suggestions, comments and requests for new satellites and candidate sensors from attendees are highly welcomed.

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