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## Status of Himawari-8/9 and their follow-on satellite Himawari-10

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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. On 13 December 2022, JMA implemented the operational satellite switchover from Himawari-8 to -9 smoothly. The switch was almost seamless, with no data format or data dissemination system changes. Now, the Himawari-9 is an observing satellite and the Himawari-8 is a back-up satellite. In the event of a critical Himawari-9 malfunction, Himawari-8 will begin back-up observation. Himawari-8/9 are placed in geostationary orbit at around 140.7°E and provide observation and data collection services for the East Asia and Western Pacific regions. The pair of these satellites will support JMA's stable provision of continuous satellite observation data until 2030. Operational information regarding Himawari-8/9 is provided on JMA's Meteorological Satellite Center (MSC) website.

In January 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 covering a 1,000 km x 1,000 km area every 2.5 minutes. As of 30 August 2023, there have been 22 registered NMHSs, and 185 international requests have been accepted since the commencement of the service. The targets of requests are tropical cyclones in the

South Pacific, bush fires in Australia, volcanos in Indonesia and Tonga, and so on. In Japanese Fiscal Year (FY) 2018, JMA has started considering the Himawari-8/9 follow-on program. The Implementation Plan of the Basic Plan on Space Policy, which is decided/revised by the Strategic Headquarters for National Space Policy, Cabinet Office, Government of Japan, states that "By FY2023 Japan will start manufacturing the Geostationary Meteorological Satellite that will be the successor to Himawari-8 and -9, aiming to put it into operation in around FY2029". Against this background, JMA completed a contract for Himawari-10 in March 2023 and began related manufacture. JMA will pursue a seamless geostationary earth orbit satellite system, keeping in mind the CGMS baseline and the WMO Vision for WIGOS in 2040, including in particular the deployment of hyperspectral infrared sounders for the whole geostationary ring. In addition to the visible/infrared imager, the infrared sounder is planned for Himawari-10 mission to help improve JMA's services in extreme weather monitoring, nowcasting and numerical weather prediction. The Space Environmental Suite developed by the Ministry of Internal Affairs and Communications (MIC) and the National Institute of Information and Communications Technology (NICT) will also be mounted on the satellite as hosted payload.

The Himawari series of satellites have been widely used in East Asia and the Western Pacific, representing an indispensable part of this international infrastructure. In this conference, the details of JMA's program of Himawari-10 and its sensors will be presented.