JMA Launches New International Service HimawariRequest
Based on Himawari-8/9 Target Area Observation

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Japan Meteorological Agency (JMA)

JMA has launched its new international HimawariRequest service, which allows National Meteorological and Hydrological Services (NMHSs) to request Target Area observation conducted by Himawari-8/9 every 2.5 minutes.

JMA's latest-generation Himawari-8 geostationary meteorological satellite began operation in July 2015, with the corresponding Himawari-9 unit entering a state of backup operation in March 2017. This dual satellite system is expected to provide a continuous stream of observation data for the Asia-Oceania region until 2029.

The Advanced Himawari Imager (AHI) on board Himawari-8/9 is capable of frequent and flexible observation, providing Full-Disk images of the earth every 10 minutes and regional images with shorter intervals. Full-Disk and other regional observations have spatial resolutions of 0.5 to 2 km and spectral coverage incorporating 16 bands.

In regional monitoring, Target Area observation provides imagery covering a 1,000 x 1,000 km area every 2.5 minutes with flexibility for location changes to support JMA's national and international services. The observation is normally focused on an area of active volcanoes in the domain of the Tokyo Volcanic Ash Advisory Center (VAAC), and is adapted to encompass typhoons within the responsibility area of the Regional Specialized Meteorological Center (RSMC) Tokyo Typhoon Center.

The HimawariRequest service enables registered NMHS users to request particular Target Area observations in order to leverage this flexibility on an international scale. The service stems from a WMO RA II (Asia) regional project to develop support for NMHSs in satellite data, products and training in collaboration with WMO RA V (South-West Pacific) Members.

JMA expects the HimawariRequest service to support disaster risk reduction activities in the region based on the monitoring of extreme events such as tropical cyclones and volcanic eruptions.
Target Area in the AHI observation sequence within a 10-minute time frame

Contribution to early detection of volcanic eruptions and intensive plume monitoring immediately after an eruption

2.5-min
- e.g. Mt. Thupanovsky eruption (9 February 2016)
  - Initial
  - 2.5 min
  - 5 min
  - 7.5 min
  - 10 min
  - 12.5 min
  - 15 min
  - 17.5 min
  - 20 min

10-min
- Early detection of the eruption
- Plume monitoring

Contribution to intensive monitoring of tropical cyclone structures/center locations

e.g. An tropical cyclone approaching Australia (27 December 2017)

Target Area observation benefits