

4.2. Synthesis of user requirements

A draft plan for a collaborative development to improve access to “RapidScan” observation from Himawari-8/9 in RA-II/RA-V

Japan Meteorological Agency (JMA) and
Bureau of Meteorology (AuBoM)

Jakarta Declaration adopted by the
Joint RA-II/RA-V Workshop on WIGOS for Disaster Risk Reduction
BMKG, Jakarta, October 12-14 2015

Noting,

- The unique meteorological and geophysical nature of the Asia/Oceania region which is characterised by frequent high-impact phenomena such as tropical cyclones, severe convective weather and volcanic eruptions,
- The need to protect lives and property in this densely populated region, and the central role played by the National Meteorological and Hydrological Services in Disaster Risk Reduction,

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Noting further,

- The excellent coverage of this region with satellite imagery obtained from geostationary platforms operated by three WMO Members, namely China, Japan and the Republic of Korea,
- The existing “RA II WIGOS Project to Develop Support for NMHSs in Satellite Data, Products and Training” led by two Co-Coordinationators representing Japan and the Republic of Korea, respectively,

Recognizing;

- The sovereign authority of satellite operators to determine the observational priorities of their space-based assets based on national priority needs and other concerns,

Himawari-8: Observation Area and Interval

Visible band

in 10 minutes time frame

RGB Composited True Color

Japan & Vicinity Obs.

Targeted Area obs.

Full Disk Obs.

Visible band

July 9-10, 2015

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Himawari-8 “RapidScan” Observation (1/3)

- The target area will be focused mainly on tropical cyclones in the area of responsibility of RSMC Tokyo Typhoon Center, and volcanic eruptions for Volcanic Ash Advisory Center (VAAC Tokyo).
- However, JMA is willing to support NMHSs in the regions to the best possible extent by providing target area observations if we receive requests from NMHSs.

Himawari-8 “RapidScan” Observation (2/3)

- To realize the request-based observation, the following points should be taken into consideration ;
 - Firstly, it is necessary to clarify users' requirements to utilize 2.5-minute observations for their disaster risk reduction activities.
 - Secondly, it is also necessary to find a path toward the development of technique on its utilization for operational services.

Himawari-8 “RapidScan” Observation (3/3)

- Result from the results of Questionnaire on the Utilization of Satellite Data from the New Generation of Geostationary Meteorological Satellites for NMHSs in Ra-II and RA-V

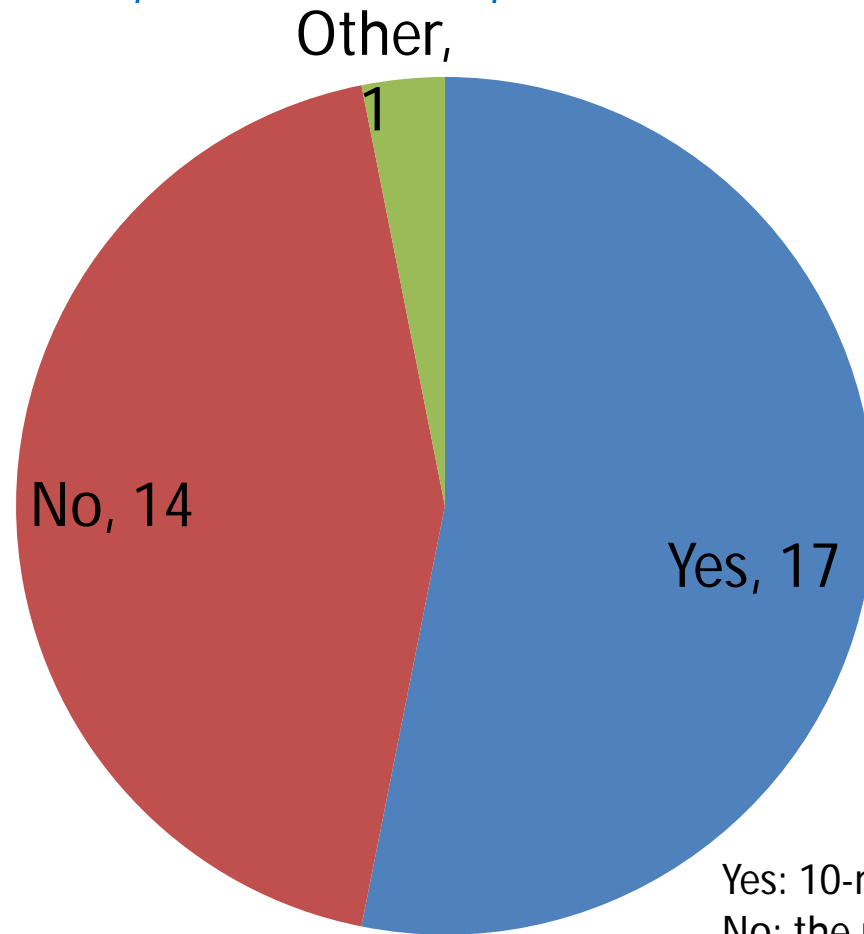
Q4: Utilization of “Rapid Scan” Observation

Is 10-minute-interval full-disk observation enough for hazard monitoring? If not, please indicate how you plan to utilize data from very-short-interval observation such as 2.5-minute-interval target-area observation?

Q4: Utilization of “RapidScan” Observation

"Yes (10-minute Observation is enough)" is the majority.

However, there are many expectations for 2.5-minute-interval observation for monitoring Convective clouds, Tropical cyclones, Severe thunderstorms, Volcanic ash, etc.



Yes: 10-minute Observation is enough
No: the more frequent “Rapid Scan”
Observation is needed

Himawari-8 “RapidScan” Observation (5/5)

- JMA and AuBoM will start a feasibility study jointly for the development of an implementation plan to utilize the “2.5-minute Rapid Scan” Observation in the case of Tropical Cyclone and Volcano Eruption, based on the experience of mutual cooperation through RSMC Tokyo Typhoon Center and Volcanic Ash Advisory Center (VAAC Tokyo) operations.
- A feasibility study will be implemented on tropical cyclones in the southern hemisphere as a target, when there is no JMA’s national priority needs and other concerns for the “RapidScan” observation.
- A preliminary discussion will also be initiated between VAAC Tokyo and VAAC Darwin for Volcanic Eruption.
- A progress and results will be presented in the 4th WIGOS Project meeting for the further discussion.