WMO OMM



World Meteorological Organization Organisation météorologique mondiale Organización Meteorológica Mundial Всемирная метеорологическая организация المنظمة العالمية للأرصاد الجوية 世界气象组织

Secrétariat 7 bis, avenue de la Paix – Case postale 2300 CH 1211 Genève 2 – Suisse Tél.: +41 (0) 22 730 81 11 Fax: +41 (0) 22 730 81 81 wmo@wmo.int – public.wmo.int

5 February 2018

Our ref.: 01564/2018/OBS/SAT/HimawariRequest

Annexes: 3 (available in English only)

Subject: Announcement of the new international HimawariRequest satellite service for RA II and RA V

Dear Sir/Madam,

The World Meteorological Organization (WMO) is proud to announce that the Japan Meteorological Agency (JMA) launched the new international HimawariRequest satellite service for Regional Association (RA) II and RA V, in collaboration with the Australian Bureau of Meteorology.

HimawariRequest allows users of Himawari-8/9 satellite data to request Target Area observations covering a 1000 km x 1000 km area every 2.5 minutes. Target Area observations provide more accurate satellite-based tracking and thus better insight into severe events, for example, tropical cyclones or volcanic eruptions, and are expected to contribute to reducing the impact of natural disasters in RA II and RA V.

HimawariRequest is a direct outcome of a recommendation by the Joint RA II/RA V Workshop on the WMO Integrated Global Observing System (WIGOS) for Disaster Risk Reduction held in October 2015 in Jakarta, Indonesia, and subsequent discussions within the WMO Space Programme and its Inter-Programme Expert Team on Satellite Utilization and Products (IPET-SUP).

Please find attached the letter from the Permanent Representative of Japan with WMO announcing HimawariRequest, with annexes describing user registration and request details.

I would like to express my appreciation for your continued support in promoting the Programmes and activities of WMO.

Yours faithfully,

(W. Zhang) for the Secretary-General

- To: Permanent Representatives (or Directors of Meteorological or Hydrometeorological Services) of France, Russian Federation, United Kingdom, United States of America and Members of WMO in RA II and RA V (limited distribution)
- cc: Hydrological Advisers to Permanent Representatives Mr Akira Okagaki, Office of International Affairs, Japan Meteorological Agency



Our reference: JMA18/O3/008

18 January 2018

Subject: Launch of a New International Service Using Himawari-8/9 Target Area Observation

Dear Sir/Madam,

As you are aware, the Japan Meteorological Agency (JMA)'s geostationary meteorological satellite Himawari-8 began operation in July 2015, and Himawari-9 began backup operation in March 2017. This dual combination of satellites will support stable provision of continuous observation data for the Asia and Pacific regions until 2029.

These new-generation satellites are capable of regional observation, called Target Area observation, covering 1000km x 1000km area, provided every 2.5 minutes. This function is currently utilized for JMA's national and international services including the RSMC Tokyo Typhoon Center and the VAAC Tokyo.

Making use of the operational experiences gained so far, I am very pleased to announce that JMA has launched a new international service, namely HimawariRequest, using the Target Area observation, in collaboration with the Australian Bureau of Meteorology. This service is also one of the outcomes of the RA II WIGOS Project to Develop Support for NMHSs in Satellite Data, Products and Training, which is being carried out in collaboration with the RA V Task Team on Satellite Utilization.

Under this service, users can request JMA for Target Area observation indicating a location and period of the observation. To use the service, users are required to complete registration in advance according to 2.4 in the attachment of this letter. The attachment also shows the detailed information on the service including the request procedure.

I hope that the HimawariRequest service will contribute to disaster risk reduction activities in the region through monitoring severe events such as tropical cyclones and volcanic eruptions.

Yours sincerely,

Josh Hashida

(Toshihiko HASHIDA) Director-General of the Japan Meteorological Agency and Permanent Representative of Japan with WMO

Attachment : HimawariRequest Service Description

To : Permanent Representatives of Members of Regional Association II and Regional Association V

HimawariRequest Service Description

Version 1.0



Japan Meteorological Agency

Document Control*

Version	Date	Version information	
V 0.1	May 2017	Reported at IPET-SUP-3	
V 0.2	June 2017	Reported at CGMS-45	
V 0.3	September 2017	Reported at SCOPE-Nowcasting-EP	
V 0.4	October 2017	Reported at the fifth meeting of the RA II WIGOS Project to Develop Support for NMHSs in Satellite Data, Products and Training	
V 1.0	18 January 2018	First edition release	

* Formerly titled 'Protocol for Himawari-8/9 Request-driven Rapid Scan in WMO RA II and RA V.'

HimawariRequest Service Description

1 Introduction

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 (Fig. 1). Full-Disk and other regional observations have spatial resolutions of 0.5 to 2 km and spectral coverage incorporating 16 bands.



Figure 1: AHI observation sequence within a 10-minute time frame

In regional monitoring, Target Area (Region 3) 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 VAAC, and is adapted to encompass typhoons within the RSMC Tokyo Typhoon Center's area of responsibility.

The HimawariRequest service allows National Meteorological and Hydrological Services (NMHSs) to request particular Target Area observations in order to leverage this flexibility on an international scale.

JMA provides the service in collaboration with the Australian Bureau of Meteorology (AuBoM) based on the partnership on meteorological satellites between the two organizations.

2 Request Guidelines

2.1 Service Overview

The HimawariRequest service enables NMHSs in the Himawari-8/9 coverage area (referred to here as "Users" or individually "User") to request specific areas and times for Target Area observation.

2.2 Basic Principles

- (1) Requests from Users may be overridden or interrupted depending on circumstances within Japan or JMA.
- (2) The service is provided on a best-effort basis in consideration of operational limitations.
- (3) Users' requests relating to emergency operations for tropical cyclones and volcanic eruptions are prioritized over other users' requests.
- (4) Observations shall not initially exceed 48 hours, but may be extended in response to additional requests.

2.3 Request Management

A 2016 feasibility study conducted by JMA and AuBoM on request-based Himawari-8 Target Area observation indicated potential advantages from AuBoM brokerage of RA V (South-West Pacific) observation requests in order to mitigate burdens placed on JMA in relation to extreme events.

Accordingly, RA V Users should submit requests directly to AuBoM. In the event of conflicting requests from different Users, AuBoM shall assign priority in line with Basic Principle 3 above. If this is impractical, AuBoM shall assign priority at its own discretion. AuBoM shall inform JMA of a single request for each time slot.

Users of RA II (Asia) and the United States of America (USA) should submit requests directly to JMA.

The related procedures are detailed in Section 2.5.

2.4 Registration

Before using the service, Users must submit a completed registration form (see the Annex) specifying the e-mail address from which requests will be sent in order to enable validation by JMA and AuBoM.

2.5 Request Procedure

Users should e-mail requests via the dedicated website using the registered e-mail address with information on the observation center and the desired start/end times to trigger subsequent procedures. The relevant URL will be provided once registration is complete.

2.5.1 Procedure for Users of RA II and USA

Users of RA II and USA can e-mail requests to JMA directly. The procedure is as follows (see Fig. 2):

- 1. User: E-mails request to JMA.
- 2. JMA: E-mails reply.
- 3. JMA: Changes relevant JMA system settings.



Figure 2: Request procedure for Users of RA II and USA

2.5.2 Procedure for RA V Users

The AuBoM procedure for RA V Users is as follows (Fig. 3):

- 1. User: E-mails request to AuBoM.
- 2. AuBoM: Resolves any relevant observation conflicts and forwards the request e-mail to JMA.
- 3. JMA: E-mails reply to AuBoM.
- 4. JMA: Changes relevant JMA system settings.
- 5. AuBoM Forwards JMA reply to User.



Figure 3: Request procedure for RA V Users

2.6 Service Availability

The HimawariRequest service is available 24/7 and provided ASAP. The request procedure is normally completed within around three hours during working hours and within around six hours otherwise.

3 Data Access

Target-Area observation data are provided via the HimawariCloud service. Related imagery is also available on the Himawari Real-time Image website (<u>imagery</u> <u>products</u> and <u>observation area</u>).

4 Feedback

Once the requested observation is complete, Users are asked to provide JMA with feedback on how the observation data are used.

Annex

HimawariRequest Registration Form

Users must register in advance for the HimawariRequest service. To register, email this completed form to JMA (metsat@met.kishou.go.jp) with "HimawariRequest Registration" in the subject line. RA V Member information provided on the form is shared with AuBoM, which plays a broker role in the request procedure for RA V Members

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Section 1: Organization Information			
1.1	Nation		
1.2	Organization (one NMHS per nation)		
Section 2: Requester Contact Information			
For contact regarding processing of the nation's requests			
2.1	E-mail		
	Provide the email address from which		
	requests will be sent. Free email services		
	may not be used.		
2.2	Phone number		
Section 3: Registrant Contact Information			
For contact with JMA and/or AuBoM			
3.1	Name		
3.2	Position		
3.3	E-mail		
3.4	Phone number		
Section 4: Supervisor Contact Information			
For contact with the request/registration supervisor			
4.1	Name		
4.2	Position		
4.3	E-mail		
4.4	Phone number		