AOMSUC-15 FYSUC-2025

FIFTEENTH ASIA-OCEANIA METEOROLOGICAL SATELLITE USERS' CONFERENCE

THE JOINT 2025 FENGYUN SATELLITE USER CONFERENCE

Himawari-8/9 Data Access and Updates

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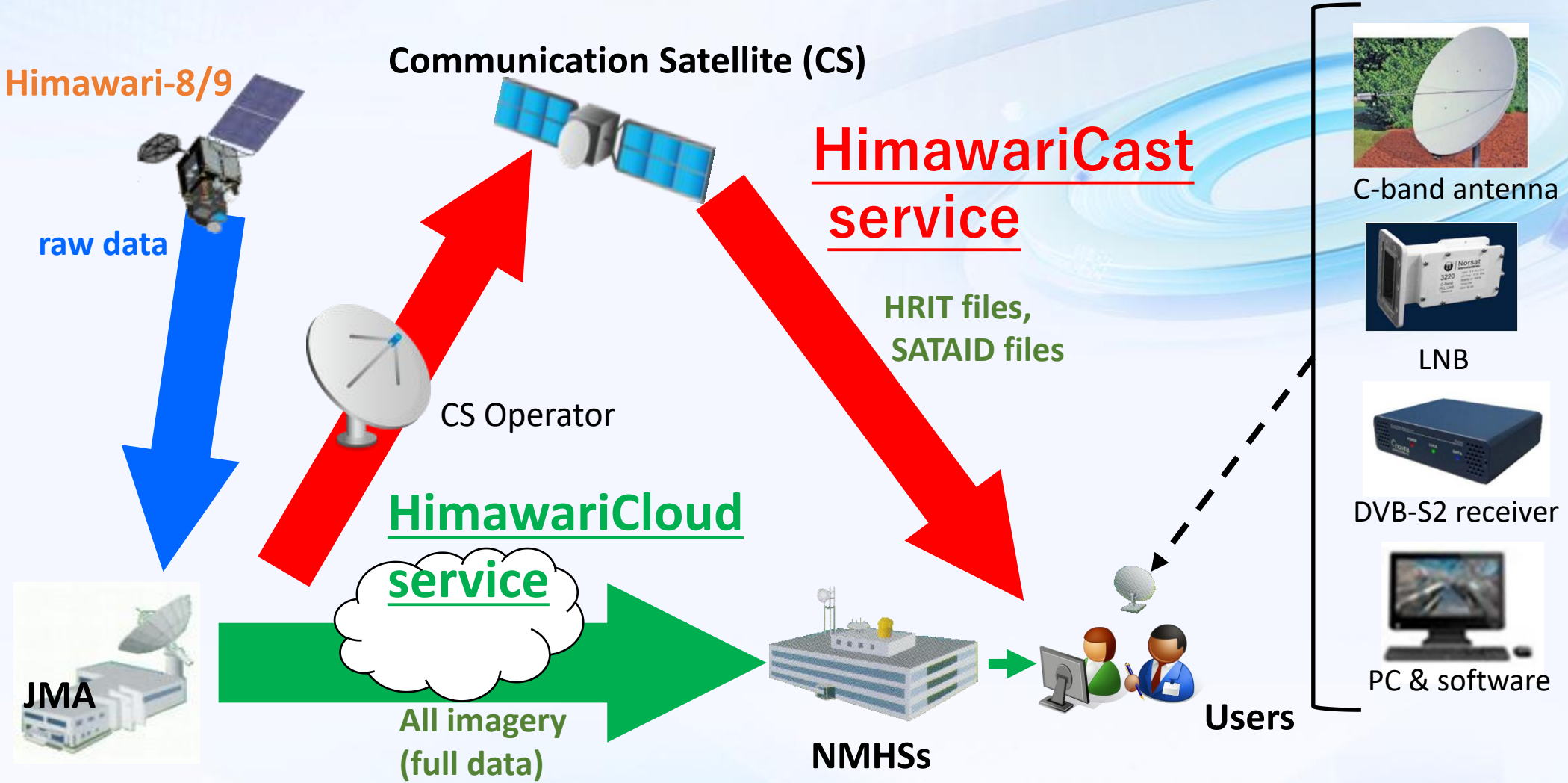
Himawari-8/9 Data Distribution and Dissemination

1. HimawariCloud and HimawariCast Services
2. Himawari JDDS (JMA Data Dissemination System)
3. Distribution service for R&D and Education
4. Web-based Services
   - Himawari Real-Time Image
   - RSMC Tokyo for Nowcasting

Support for Himawari-8/9 Data Acquisition

- Replacement of HimawariCast Receiving System

HimawariCloud and HimawariCast Services

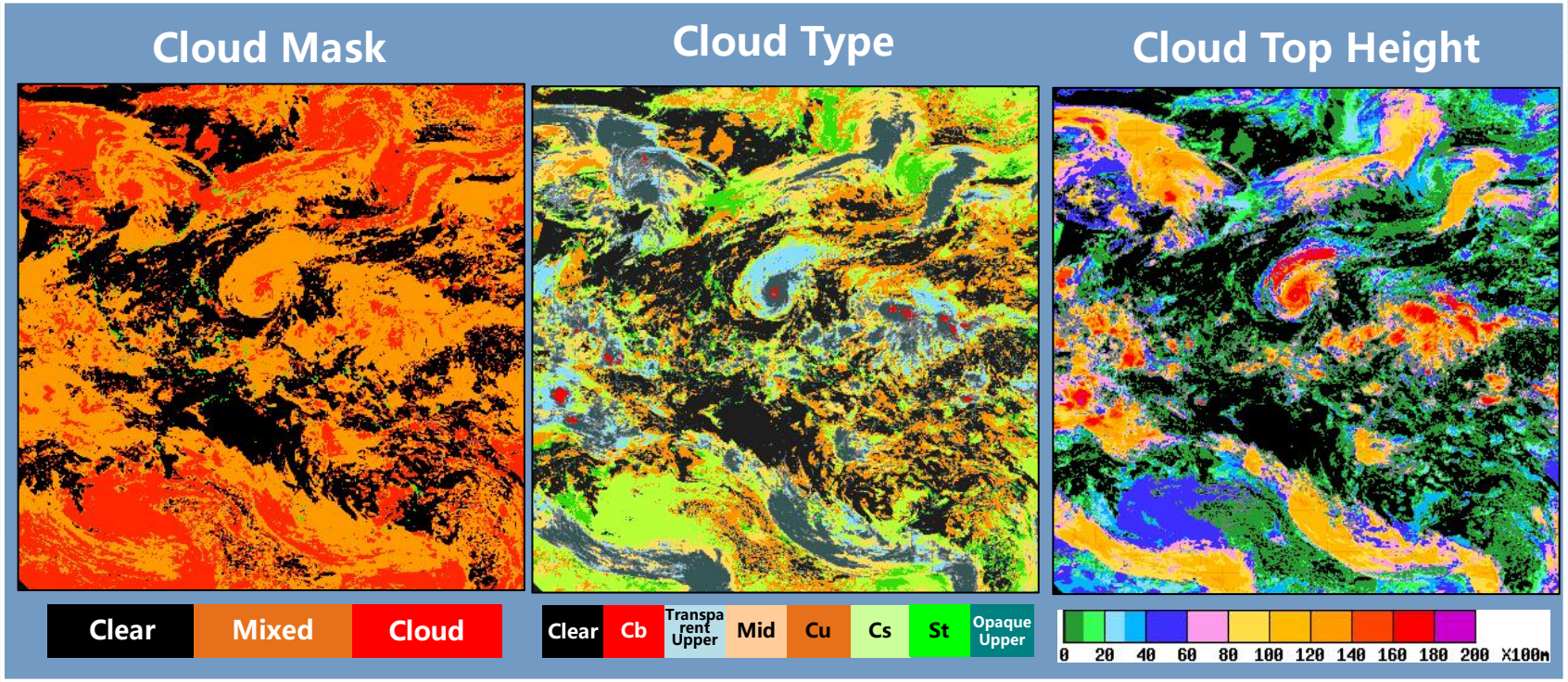


HimawariCloud: https://www.data.jma.go.jp/mscweb/en/himawari89/cloud_service/cloud_service.html
HimawariCast: https://www.data.jma.go.jp/mscweb/en/himawari89/himawari_cast/himawari_cast.php

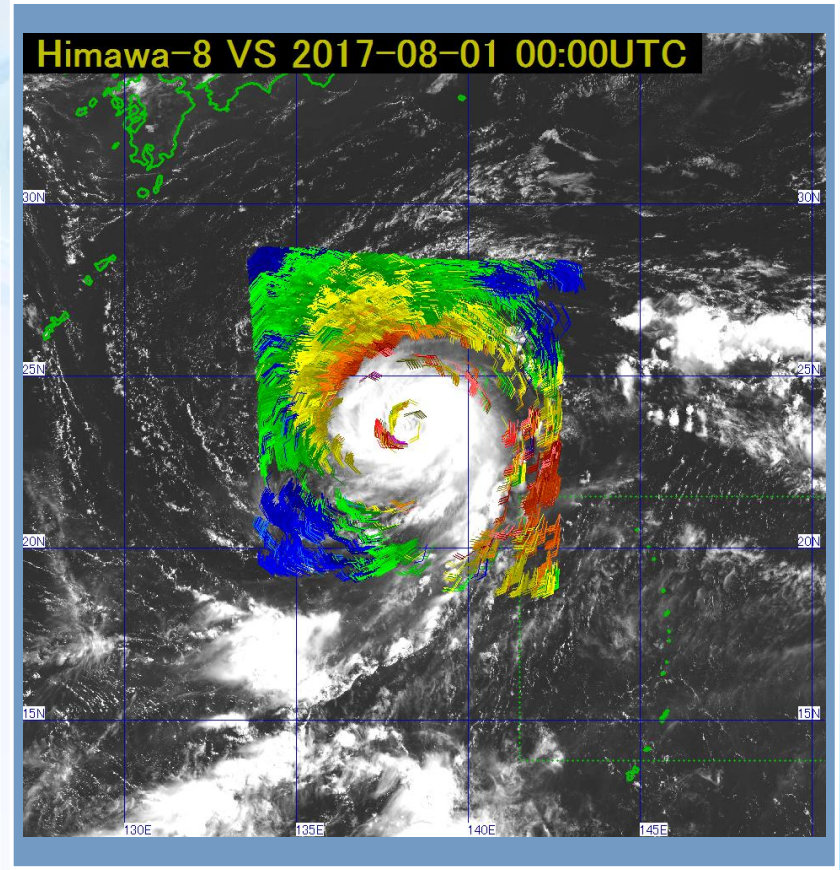
Himawari JDDS (JMA Data Dissemination System)

Products:

- Himawari-8/9 Imagery (HRIT and JPEG format)
- HCAI: High-resolution Cloud Analysis Information
- ASWind: AMV-based Sea-surface Wind



HCAI



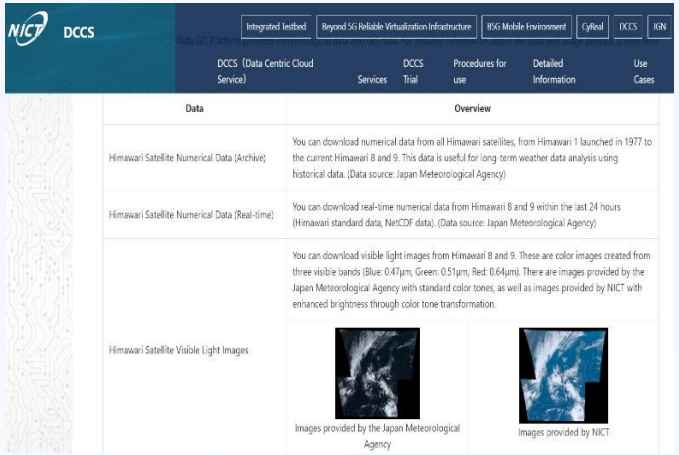
ASWind

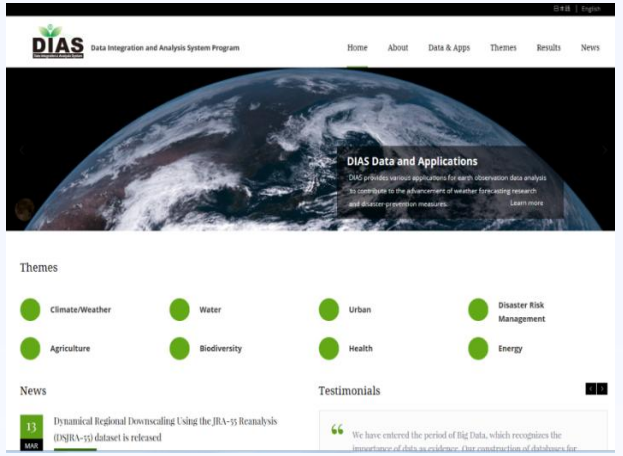
https://www.data.jma.go.jp/mscweb/en/himawari89/JDDS_service/JDDS_service.html

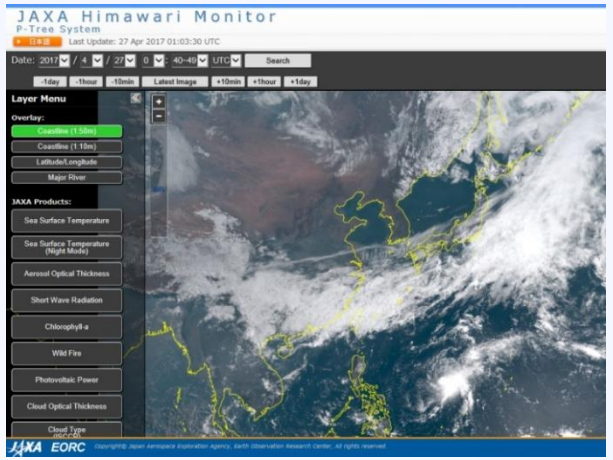
Distribution service for R&D and Education

Himawari-8/9 data are being redistributed to foreign and domestic R&D users by the following Japanese scientific institutes.

- NICT*
- Chiba University CEReS**
- JAMSTEC *** (via DIAS; Data Integration and Analysis System)
- JAXA/EORC**** (via Himawari Monitor)







https://www.jma.go.jp/jma/jma-eng/satellite/dissemination.html

* NICT: National Institute of information and Communications Technology
** CEReS: Center for Environmental Remote Sensing
*** JAMSTEC: Japan Agency for Marine-Earth Science and Technology
**** JAXA/EORC: Japan Aerospace Exploration Agency-Earth Observation Research Center

Himawari Real-Time Image

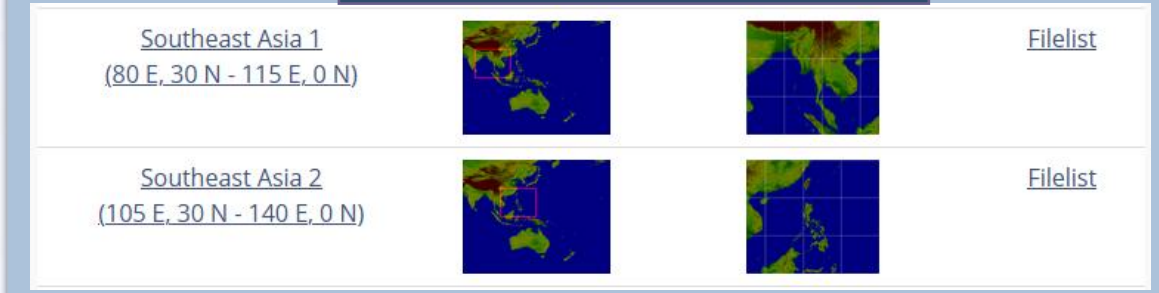
Format: JPEG file

Products:
- RGB Composite Imagery
- Visible and Infrared Imagery
- Heavy Rainfall Potential (HRP)
- ASWind (AMV-based Sea-surface Wind) for Tropical Cyclone Monitoring

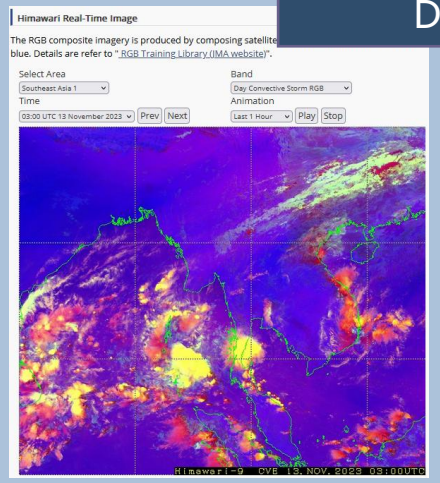
Features:
- **Regional Segmentation**
  - Allows users to select imagery for specific areas
- **Web Interface**
  - Designed to provide relatively fast loading and efficient display
- **Accessibility**
  - Users can access the service even with limited Internet bandwidth

https://www.data.jma.go.jp/mscweb/data/himawari/index.html

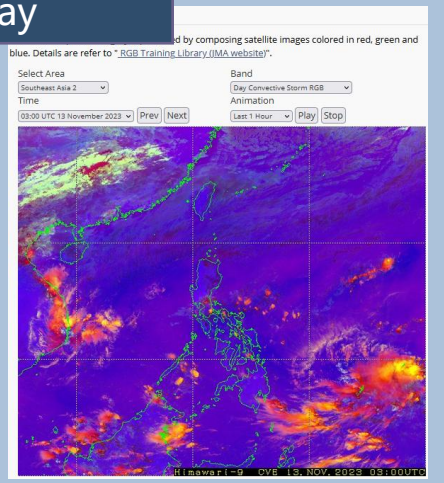
Regional Segmentation



Display

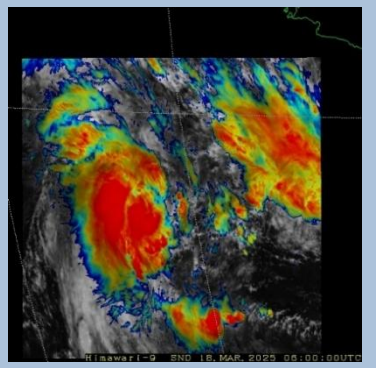


Southeast Asia 1

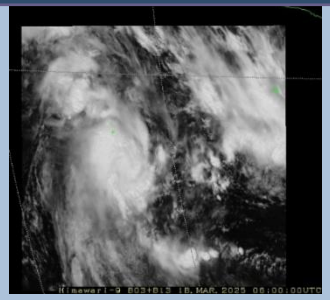


Southeast Asia 2

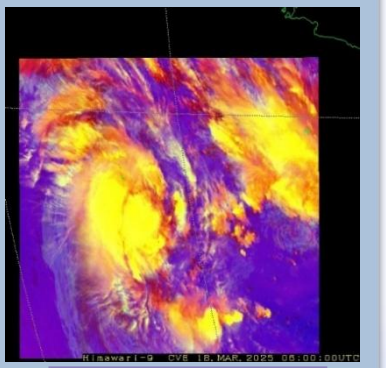
Imagery Products



Sandwich



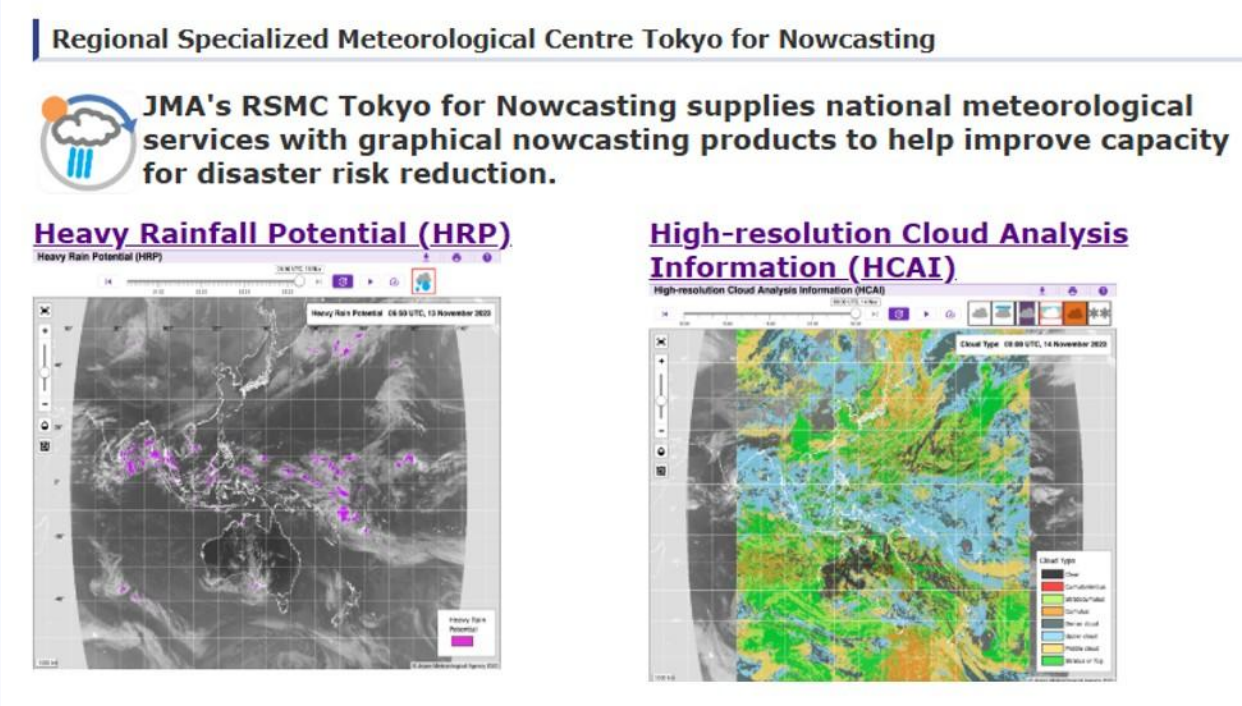
B03 and B13 at night



Day Convective Storm RGB

RSMC Tokyo for Nowcasting

- JMA launched RSMC Tokyo for Nowcasting in December 2018 to support NMHSs in the Asia and Pacific regions to provide early warnings.
- To strengthen disaster risk reduction, graphical nowcasting products are provided on the website.

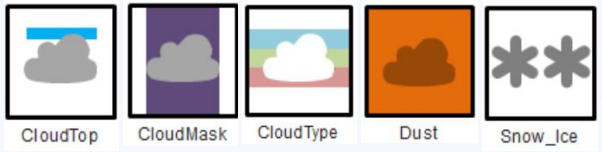


https://www.jma.go.jp/jma/jma-eng/jma-center/nowcasting/

Available Products

- Heavy Rainfall Potential (HRP)

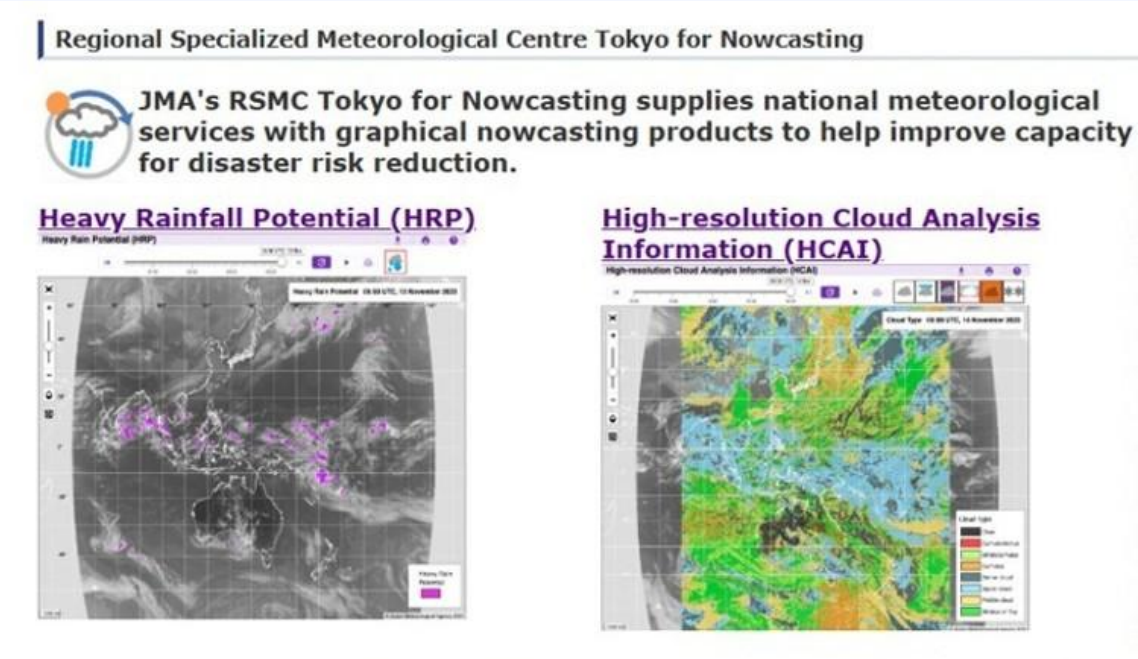
- High-resolution Cloud Analysis Information (HCAI)



HCAI is also provided via HimawariJDDS service, which is one of the data distribution methods for NMHSs.

JAXA/GSMaP through RSMC Tokyo for Nowcasting (Planned)

- JMA has been collaborating with JAXA to utilize JAXA/GSMaP through RSMC Tokyo for Nowcasting to support early warnings.
- JAXA/GSMaP is planned to be available through RSMC Tokyo for Nowcasting.



RSMC Tokyo for Nowcasting webpage

GSMaP

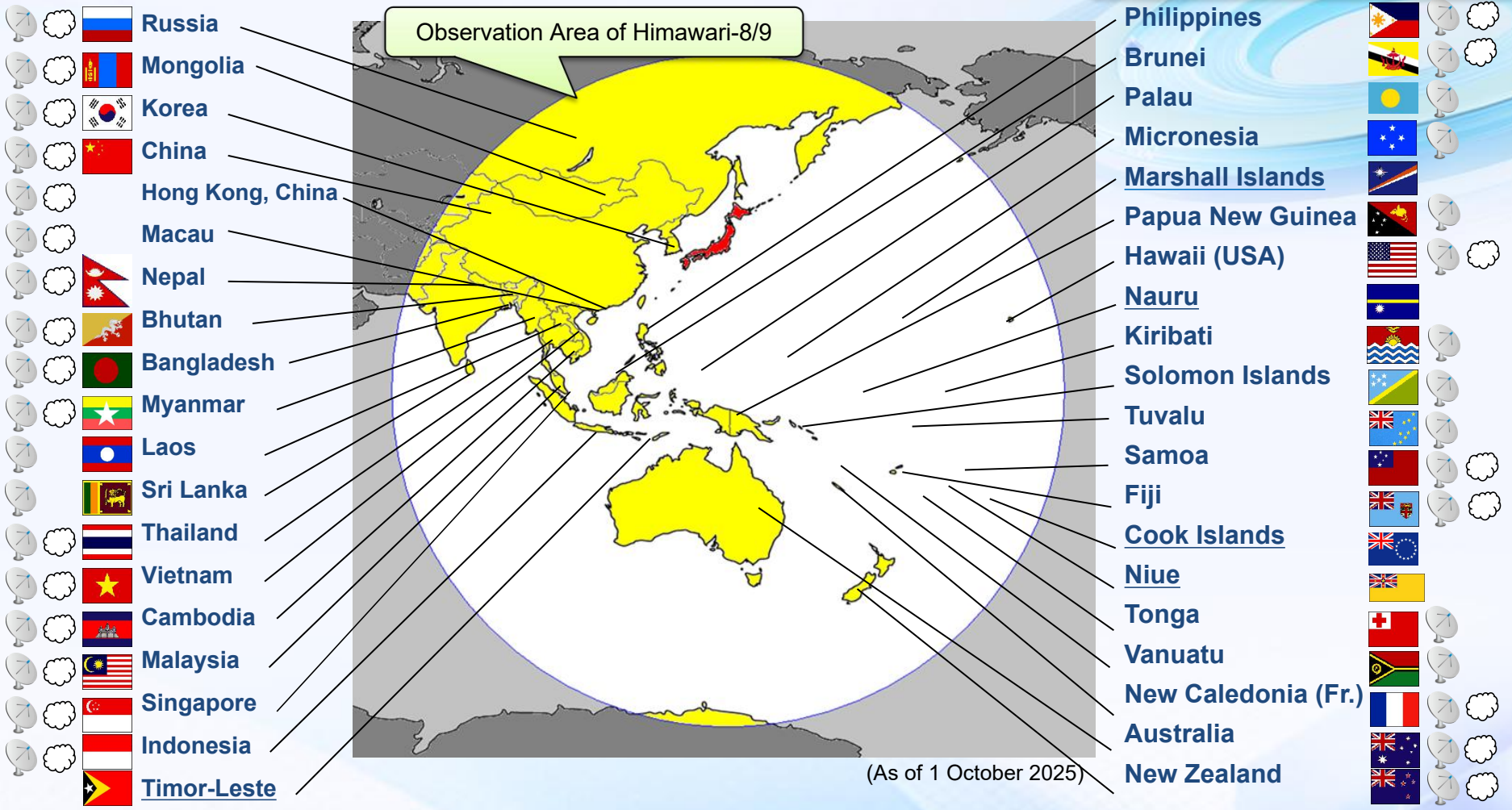
https://sharaku.eorc.jaxa.jp/GSMaP_NOW/index.htm

Himawari Users

HimawariCast Receiving Systems
34 users

HimawariCloud accounts
26 users
(Including EUMETSAT and Canada)

Web service covers
42 areas
(including Timor-Leste, Nauru, Marshall Islands, Cook Islands and Niue)



(As of 1 October 2025)

Himawari-8/9 Data Distribution and Dissemination

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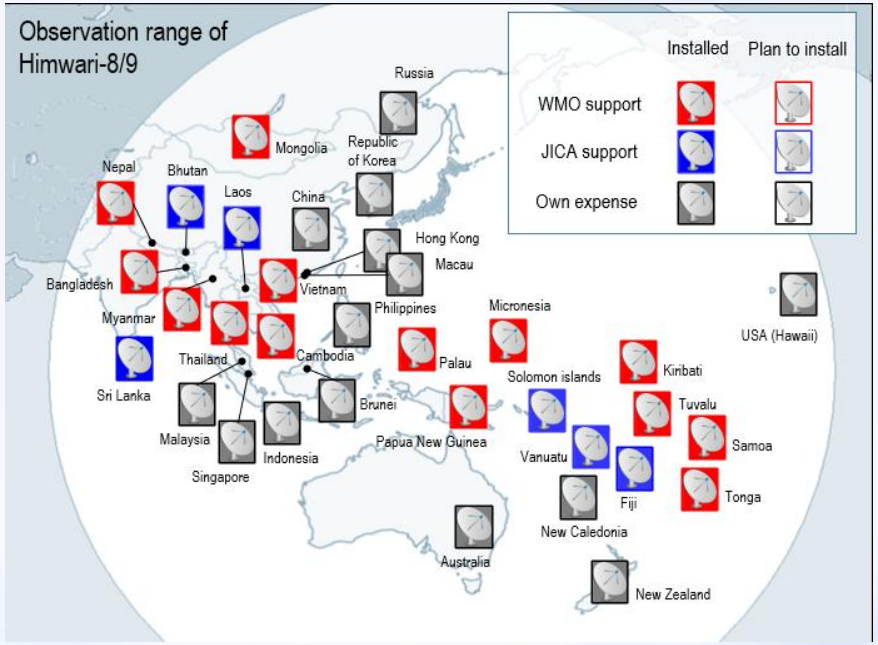
Support for Himawari-8/9 Data Acquisition

- **Replacement of HimawariCast Receiving System**

HimawariCast Receiving System

- In 2015-2017, JMA installed the HimawariCast receiving systems into 20 Asia-Oceania NMHSs in collaboration with WMO or JICA.
- The system is composed of…
  - Hardware: Antenna, receiver and computers to process and display Himawari imageries
  - Software: SATAID to visualize and analyze the imageries

Receiving antenna in Papua New Guinea

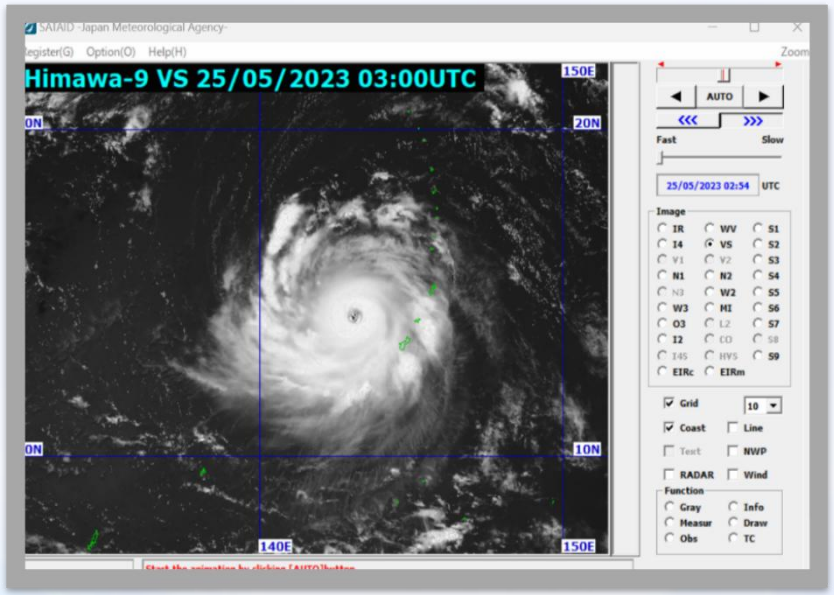


HimawariCast User Countries

HimawariCast Receiving System

- JMA conducted trainings for NMHSs when the system was installed.
  - For 23 NMHSs, from 2015 to 2017
  - How to utilize the system and analyzing the Himawari data with SATAID
- Since the installed equipment has become degraded, JMA is planning to carry out the system updates and new installations in collaboration with WMO and JICA, and conduct trainings after the replacement.

Training in Micronesia



SATAID

Summary

Himawari-8/9 Data Distribution and Dissemination

- Himawari-8/9 data are provided for NMHSs through the HimawariCloud, HimawariCast, and Himawari JDDS services to support research, operations, and education.
- JMA also provides Himawari-8/9 data through Web-based Services such as Himawari Real-Time Image and RSMC Tokyo for Nowcasting. JAXA/GSMaP is planned to be available through RSMC Tokyo for Nowcasting.

Support for Himawari-8/9 Data Acquisition

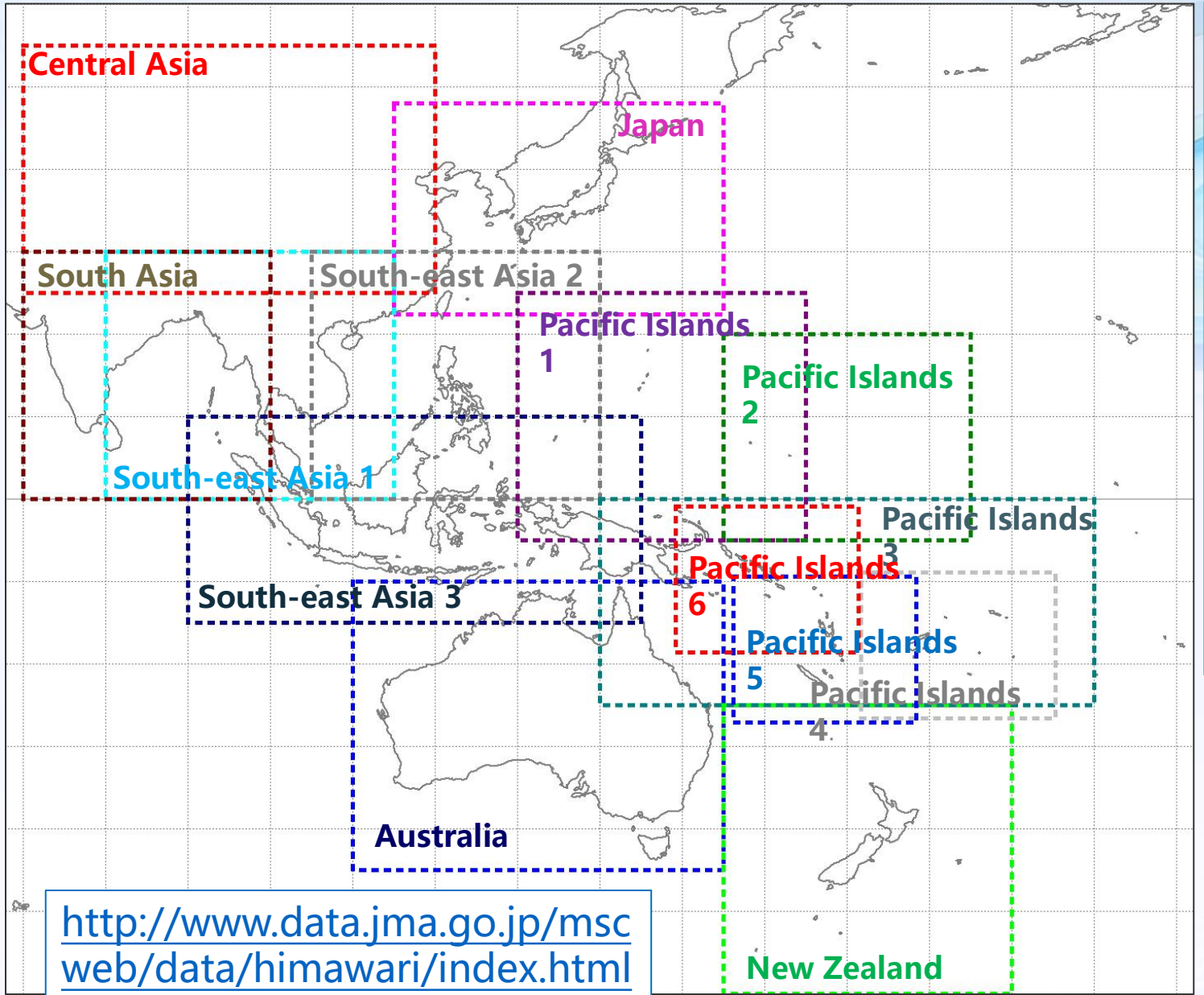
- Replacement of HimawariCast Receiving system is planned to ensure stable Himawari-8/9 data access.
- JMA is taking necessary procedures to update the system within a few years, so please wait for further information.

Thank you!!

A 150-year journey:
preventing disasters for a better future

Backup

Real-time JPEG Imagery Service on JMA/MSC Website for Asia-Oceania Region



http://www.data.jma.go.jp/msc/web/data/himawari/index.html

Resolution
0.05degree

Central Asia
Japan
South Asia
South-east Asia 1
South-east Asia 2
South-east Asia 3
Pacific Islands 1
Pacific Islands 2
Pacific Islands 3
Australia
New Zealand

Resolution
0.037degree

Pacific Islands 4
Pacific Islands 5
Pacific Islands 6

WIS Portal https://www.wis-jma.go.jp/cms/sataid/data.html

SATAID: SATellite Animation and Interactive Diagnosis

SATAID enables the visualization and manipulation of satellite imagery, NWP (numerical weather prediction) products, observation results and data.

Data for SATAID

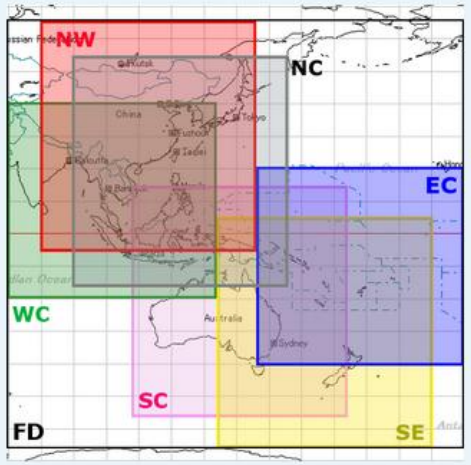
- Before using these data, please check *use conditions of SATAID Service*

Area

Data sets of six areas are provided in this service. Please select *Area Name* from menu bar when you download data.

Definition of areas and information is indicated by right figure and table below.

Abbr.	Area Name	Latitude	Longitude	Sum of Size
NC	North Central	55N-15S	90E-155E	2.3 GB/3day
NW	Northwest	65N-5S	80E-145E	2.1 GB/3day
SC	South Central	15N-55S	107.5E-172.5E	2.2 GB/3day
SE	Southeast	6N-65S	135E-200E	2.1 GB/3day
EC	East Central	20N-40S	145E-210E	1.9 GB/3day
WC	West Central	40N-20S	70E-135E	2.0 GB/3day
FD	Full Domain	65N-65S	70E-210E	9.7 GB/3day



Specification

Data of each area includes 1) Satellite Imagery of Himawari-8/9, 2) NWP Products and 3) Observation Data. Specification o in table below.

Satellite Imagery of Himawari-8/9	
List of the channel	Infrared channel-1 (Band 13)
	Infrared channel-2 (Band 15)
	Water Vapor (Band 8)
	Infrared channel-4 (Band 7)
	Visible imagery (Band 3)
Interval	ten minutes each
Size	2-4 MB/file

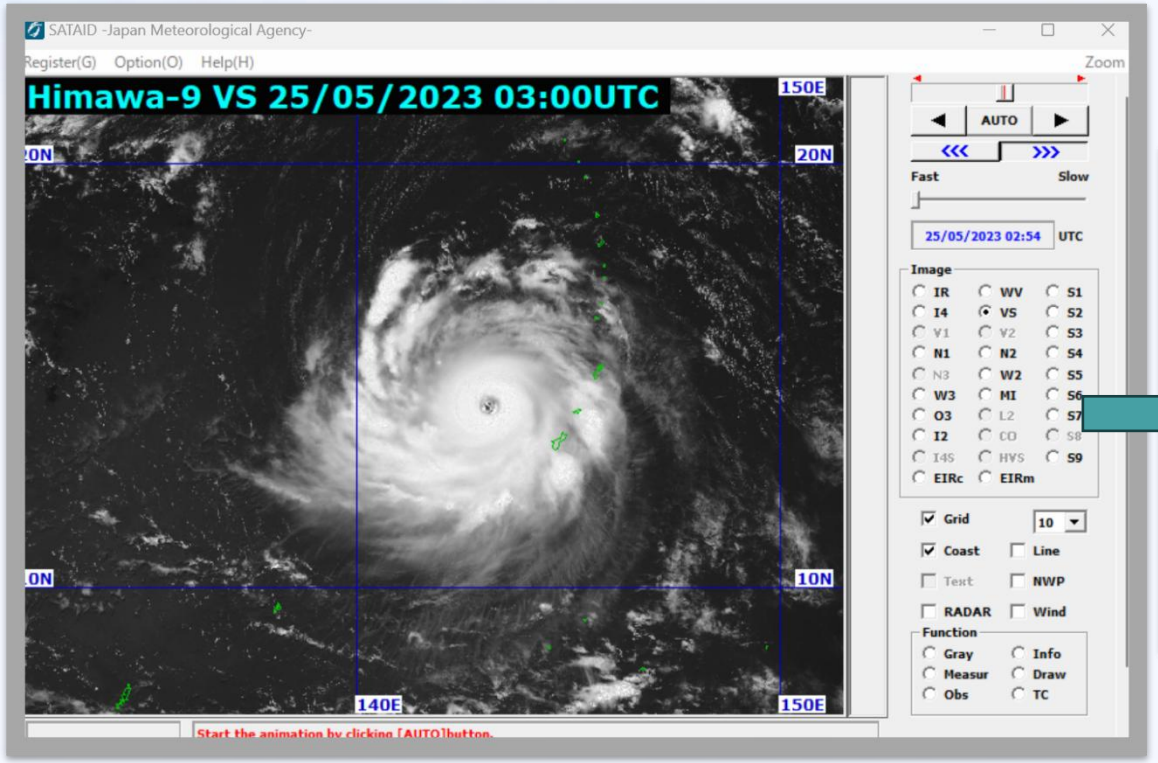
NWP Products	
Resolution	1.25 x 1.25 deg
Forecast hour	up to 48 hours
Initial time	00, 06, 12, 18 UTC
Interval	4 times/day (around 04, 10, 16, 22 UTC)
Size	4 MB/file
	15 MB/file (Full Domain)
SST (Sea surface temperature)	
Interval	Once/day
Size	700 KB/file

Observation	
SYNOP	
Interval	hourly
Size	120-160 KB/file (map time)
	40-70 KB/file (other)
SHIP	
Interval	hourly
Size	20-50 KB/file
METAR	
Interval	hourly
Size	200-270 KB/file
TEMP (A, B)	
Interval	12 hour/day, basically
Size	120 KB/file
ASCAT sea-surface wind	
Interval	hourly
Size	7 MB/file

- Data are stored for 3 days.
- Data format is all for SATAID.

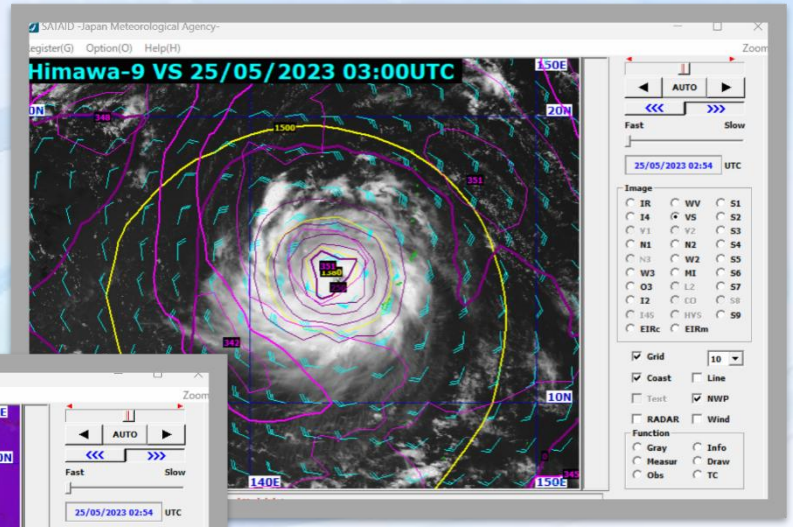
- Data sets of six areas are provided in this service.
- Data of each area includes 1) Satellite Imagery of Himawari-8/9, 2) NWP Products and 3) Observation Data.

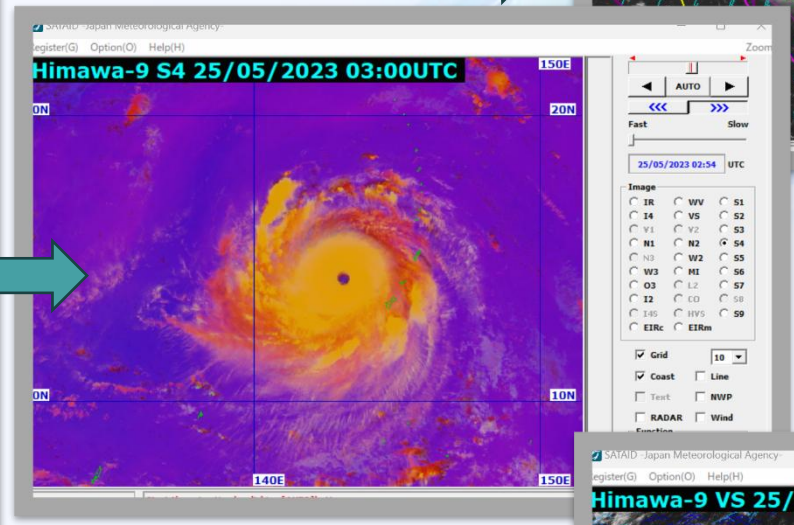
SATAID (SATellite Animation and Interactive Diagnosis)



VIS imagery for Typhoon No. 2 in SATAID
(03UTC on May 25, 2023)

NWP data overlaid
on the VIS imagery





Day Convective Stomes
RGB composite imagery

ASWind data overlaid
on the VIS imagery