HimawariCast: dataset
13 December 2022

1. Himawari imagery: HRIT files

HRIT files are divided into 10 segments from north to south and compressed using bzip2 before being disseminated.

1.1 Filenames

The names of disseminated files are as follows:

IMG_DKppccccYYYYMMDDhhmm_0nn.bz2

pp, cccc: refer to 1.2, 1.3

YYYYMMDDhhmm: observation start time

nn: segment number (01 – 10)

1.2 While Himawari-8/-9 is in operation

While Himawari-8/-9 is in operation, 14 out of 16 bands are disseminated every 10 minutes. Additionally, 1 band of high-spatial-resolution and high-bit-rate infrared imagery is disseminated at night. "pp" in the filename is fixed as "01".

Band	Dissemination	Spatial resolution	cccc	Maximum file size (estimated)
1			B01_	
2			B02_	
3 (VIS)	✓	1 km	VIS_	75 MB
4	✓	4 km	B04_	6 MB
5	✓	4 km	B05_	6 MB
6	✓	4 km	B06_	6 MB
7 (IR4)	✓	4 km	IR4_	6 MB
8 (IR3)	✓	4 km	IR3_	4 MB
9	✓	4 km	B09_	4 MB
10	✓	4 km	B10_	4 MB

11	✓	4 km	B11_	6 MB
12	✓	4 km	B12_	5 MB
13 (IR1)	✓	4 km	IR1_	6 MB
14	✓	4 km	B14_	6 MB
15 (IR2)	✓	4 km	IR2_	6 MB
16	✓	4 km	B16_	5 MB
7 (IR4)	✓ hhmm: 0800 – 2150	2 km	B07_	25 MB

Note: The maximum file size is the total for all 10 segments.

Himawari-8/-9 takes 10 minutes to scan the full disk from the observation start time, and it is expected to take 16 minutes from the observation start time to receive all segment files.

2. Himawari imagery: LRIT files

LRIT files are divided into 10 segments from north to south and compressed using bzip2 before being disseminated.

2.1 Filenames

The names of disseminated files are as follows:

IMG_DK01ccccYYYYMMDDhhmm_0nn.bz2

cccc: refer to 2.2, 2.3

YYYYMMDDhhmm: observation start time + 1 minute

nn: segment number (01 – 10)

2.2 While Himawari-8/-9 is in operation

While Himawari-8/-9 is in operation, 4 out of 16 bands are disseminated every 10 minutes as follows:

Band	Dissemination	Spatial resolution	cccc	Maximum file size (estimated)
1			B01_	
2			B02_	
3 (VIS)	✓	5 km	VIS_	2 MB
4			B04_	
5			B05_	
6			B06_	
7 (IR4)	✓	5 km	IR4_	2 MB
8 (IR3)	✓	5 km	IR3_	2 MB
9			B09_	
10			B10_	
11			B11_	
12			B12_	
13 (IR1)	✓	5 km	IR1_	2 MB
14			B14_	
15 (IR2)			IR2_	
16			B16_	

Note: The maximum file size is the total for all 10 segments.

Himawari-8/-9 takes 10 minutes to scan the full disk from the observation start time, and it is expected to take 17 minutes from the observation start time to receive all segment files.

3. Numerical weather prediction products (GPV)

JMA's Global Spectral Model (GSM) products (48-hour forecast) are compressed using bzip2 before being disseminated as follows:

    Format: SATAID
    Spatial resolution: 1.25 degrees
    Interval: 6 hours

Maximum file size (estimated): 8 MB

Filename: GSYYMMDD.Zhh.bz2

YYMMDD, hh: initial time of forecast

4. In-situ observations (SYNOP, TEMP, SHIP)

Observational data for the East Asia and Western Pacific regions are archived using tar and compressed using bzip2 before being disseminated as follows:

Format: SATAID

Interval: 30 minutes

Maximum file size (estimated): 0.2 MB

Filename: essential_1_YYYYMMDDhhmm.tar.bz2

YYYYMMDDhhmm: dissemination time

5. ASCAT ocean surface wind

Ocean surface wind data observed by EUMETSAT's Metop polar-orbiting satellites are archived using tar and compressed using bzip2 before being disseminated as follows:

Format: SATAID

Interval: 30 minutes

Maximum file size (estimated): 2 MB

Filename: essential_2_YYYYMMDDhhmm.tar.bz2

YYYYMMDDhhmm: dissemination time