Himawari-8 Advanced Himawari Imager Data on AWS

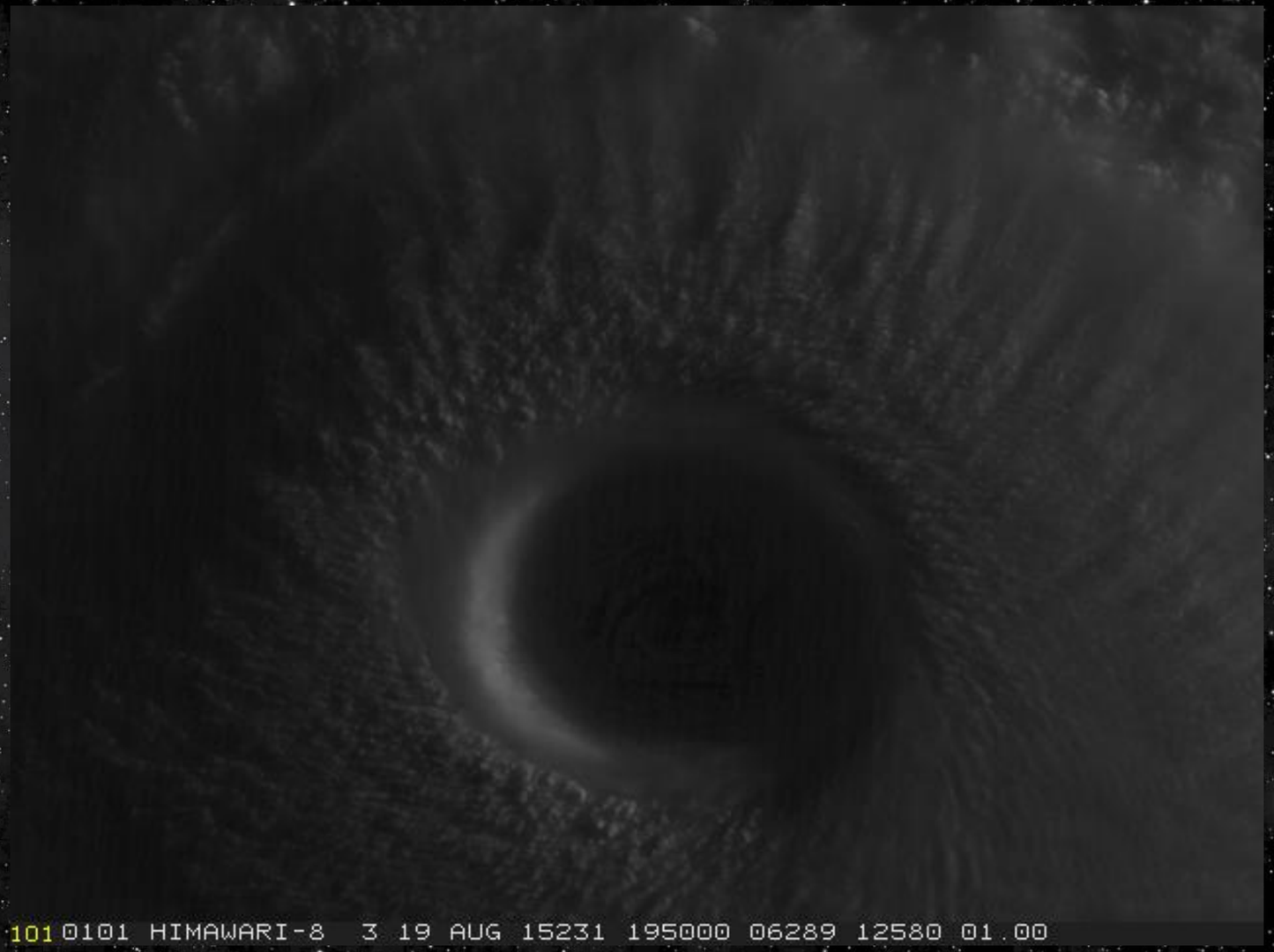
Dan Lindsey

NOAA/NESDIS/GOES-R Program Scientist

July 8, 2020

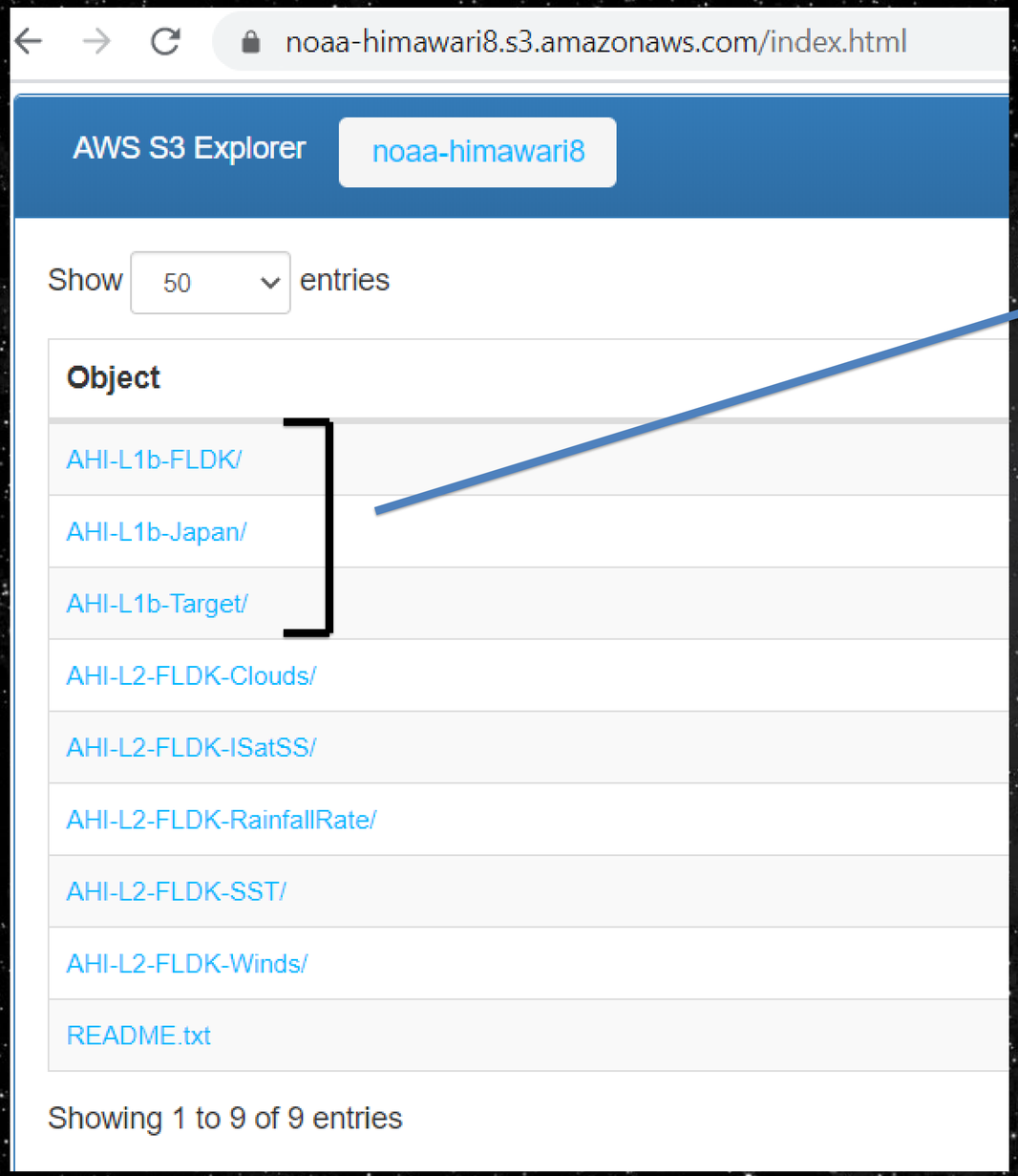
Advanced Himawari Imager

- Primary instrument on the Japan Meteorological Agency's Himawari-8 spacecraft
- Centered at 141 E. longitude over the western Pacific Ocean
- Temporal: Scans the Full Disk every 10 minutes, and has several 2.5-min Mesoscale sectors
- Collects data at 16 spectral channels
- One of the Mesoscale sectors is always over Japan. The other AWS provides is moved around to notable weather events, such as typhoons



Himawari data courtesy of JMA

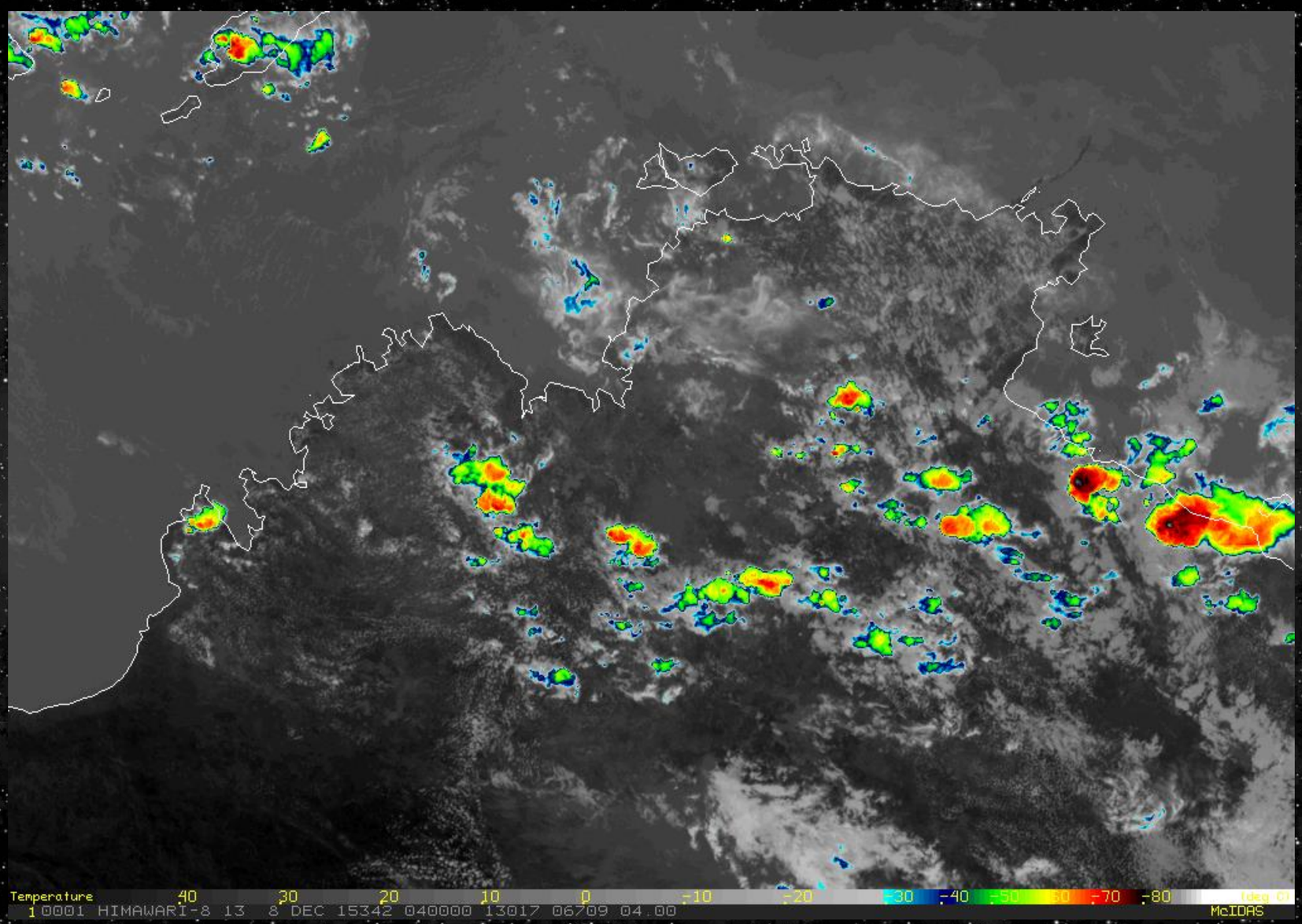
AHI Data on AWS



- L1b data is calibrated, navigated radiances in Himawari Standard Format (HSF)
- HSF is a unique binary data format – you may have to write your own reader, or you can use one of the readers provided by JMA here: https://www.data.jma.go.jp/mscweb/en/himawari89/space_segment/spsg_sample.html
- FLDK is full disk, and each FD image is chopped into 10 segments vertically. There's 1 file for every segment, for every band, for every time
- Each file is compressed in .bz2 format . Try bzunip2 [filename] to decompress
- The Japan directory contains the 2.5-min mesoscale data over Japan, and the Target directory the 2.5-min mesoscale data over the movable sector

Himawari data courtesy of JMA

L1b Data can be used to produce Imagery



Himawari data courtesy of JMA

L1b Data can be used to produce Imagery

GeoColor – a true color RGB composite generated at CIRA using L1b data as input

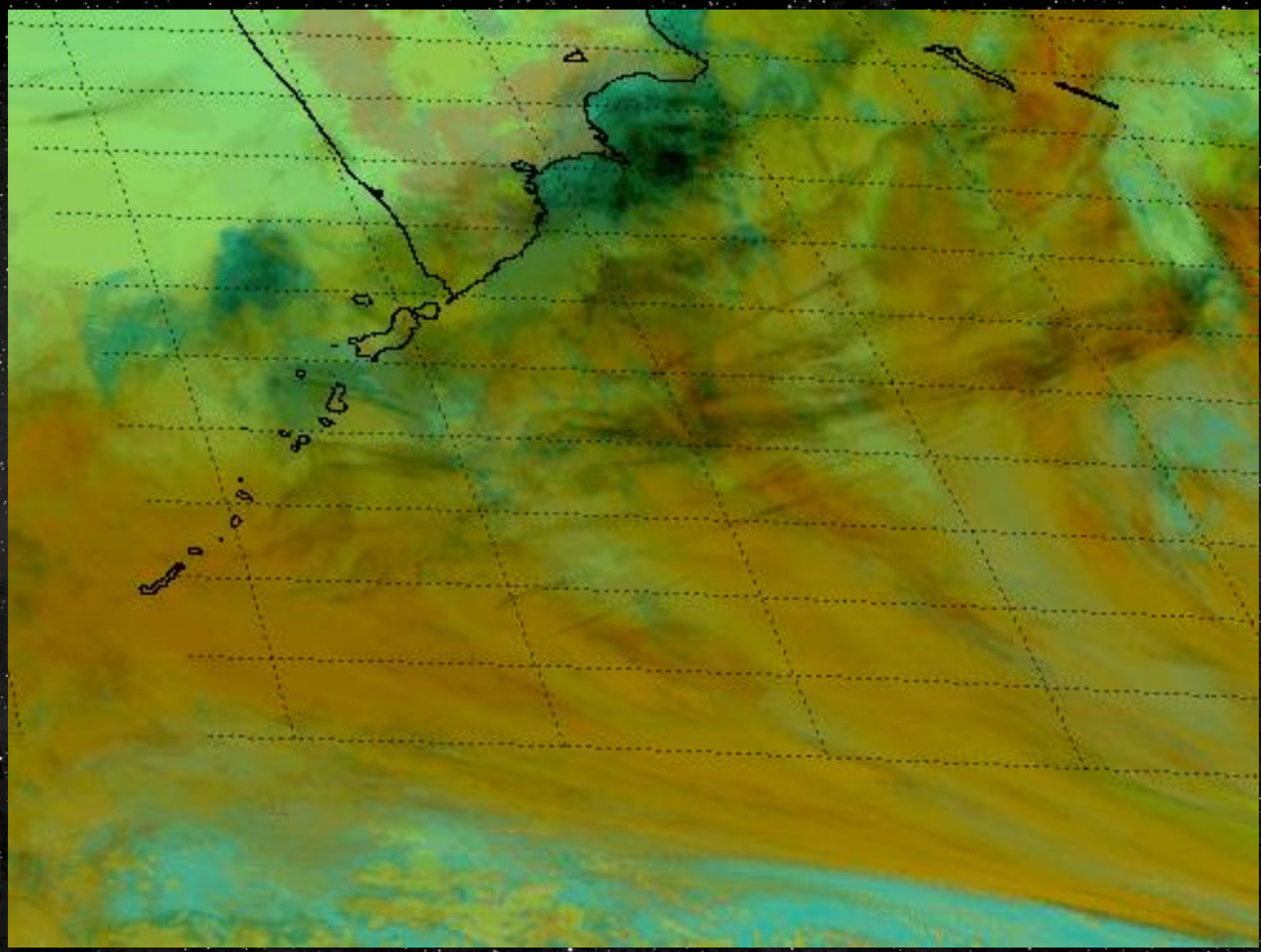
This shows the eruption of Raikoke in June of 2019

Himawari data courtesy of JMA

L1b Data can be used to produce Imagery

Ash RGB showing the eruption of Kambalny in March 2017

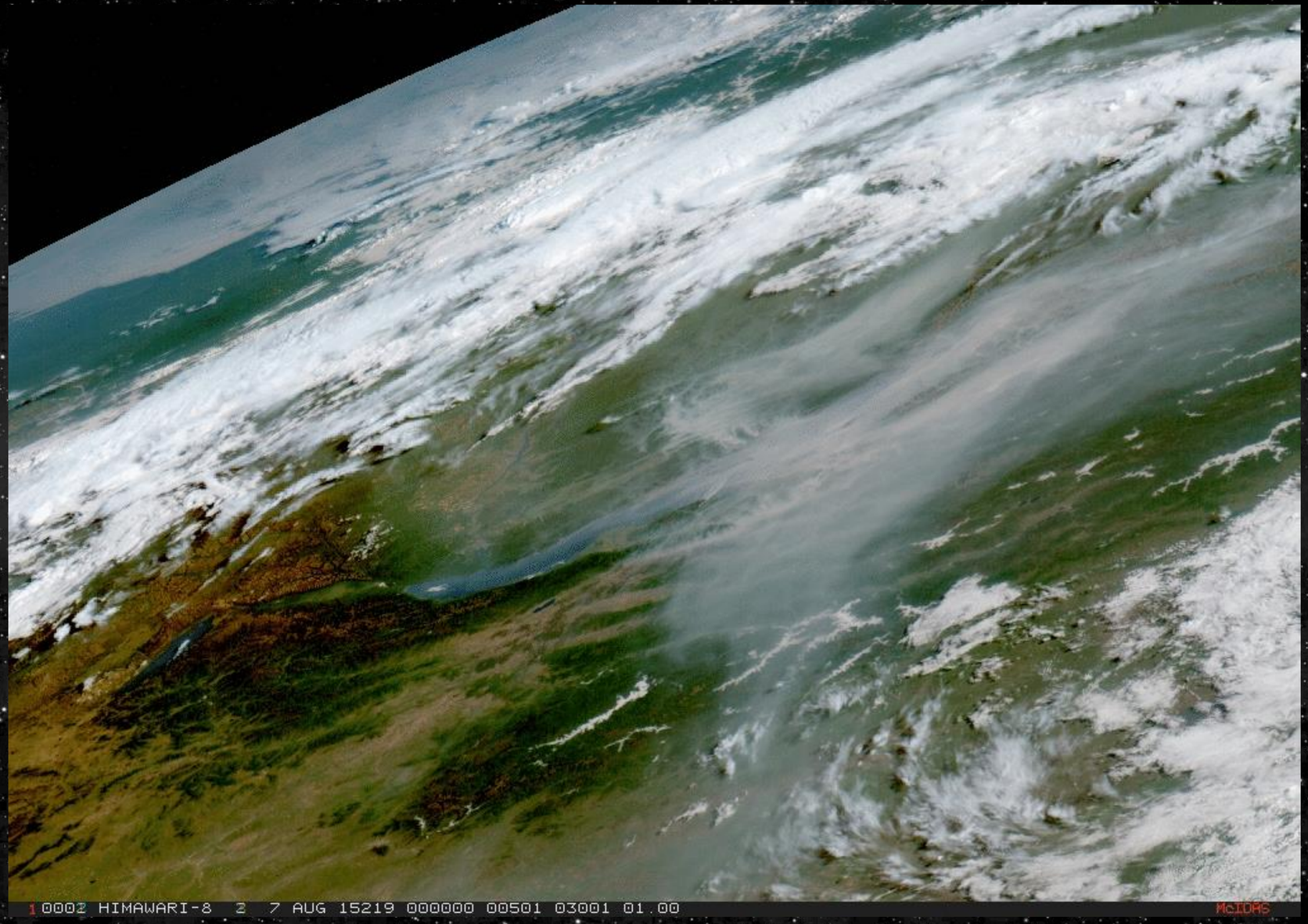
This is a simple RGB composite using L1b data to create



Himawari data courtesy of JMA

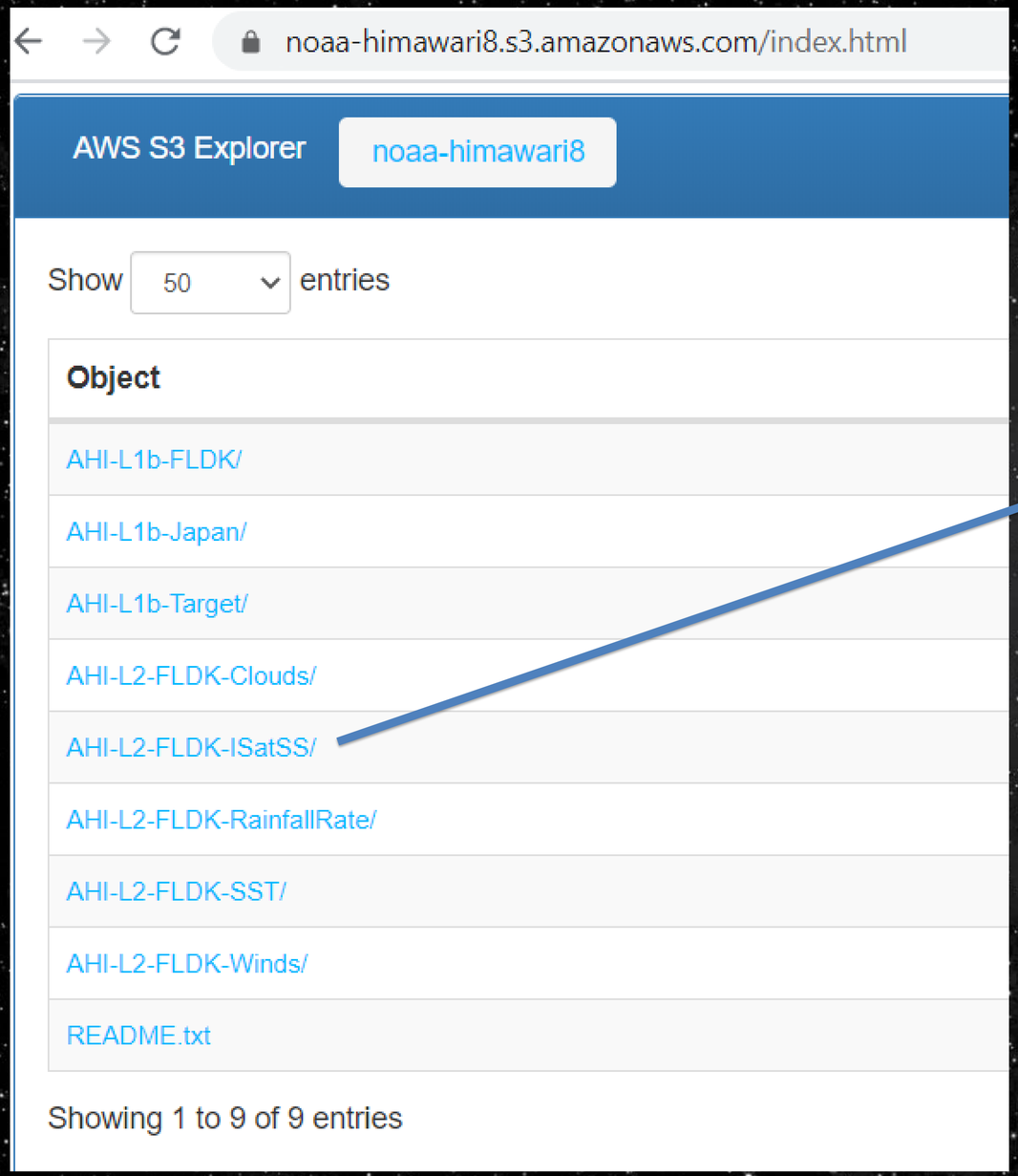
L1b Data can be used to produce Imagery

GeoColor product used to monitor wildfire smoke



Himawari data courtesy of JMA

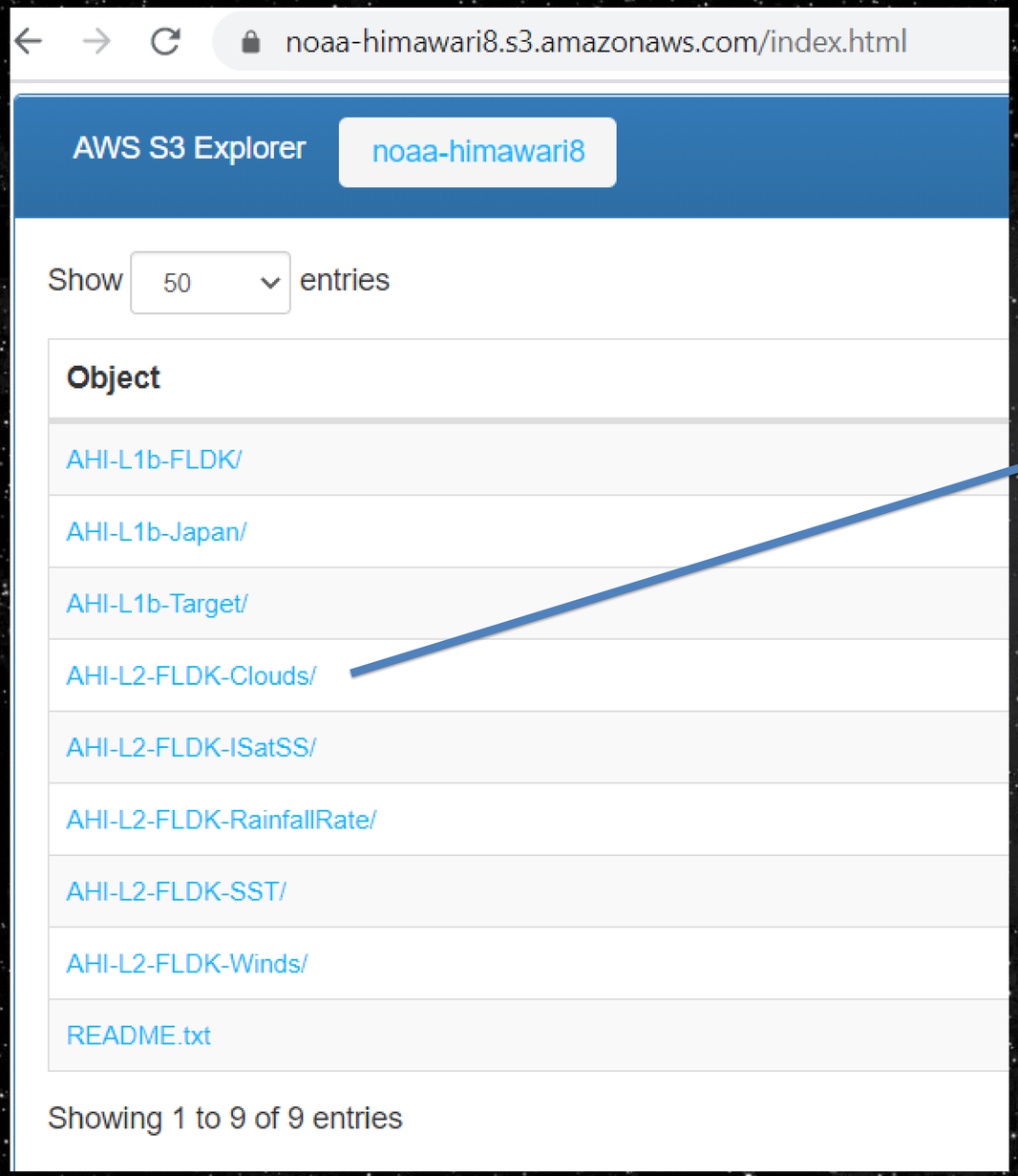
AHI Data on AWS



- The ISatSS directory contains tiled netcdf files specifically designed for use by the NOAA National Weather Service AWIPS software
- Could be easier to read than the L1b data in HSF format since netcdf is standard
- But you'll have to put the tiles together to form an image
- Contains essentially the same information as the L1b data: reflectances and brightness temperatures from the 16 AHI spectral channels

Himawari data courtesy of JMA

AHI Data on AWS



- NOAA/NESDIS/STAR produces some Level 2 products – this one contains Cloud products in netcdf format
- The Cloud products include:
  - Cloud Mask
  - Cloud Phase
  - Cloud Height
- The available data are hourly on the Full Disk only

Himawari data courtesy of JMA

AHI Data on AWS

noaa-himawari8.s3.amazonaws.com/index.html

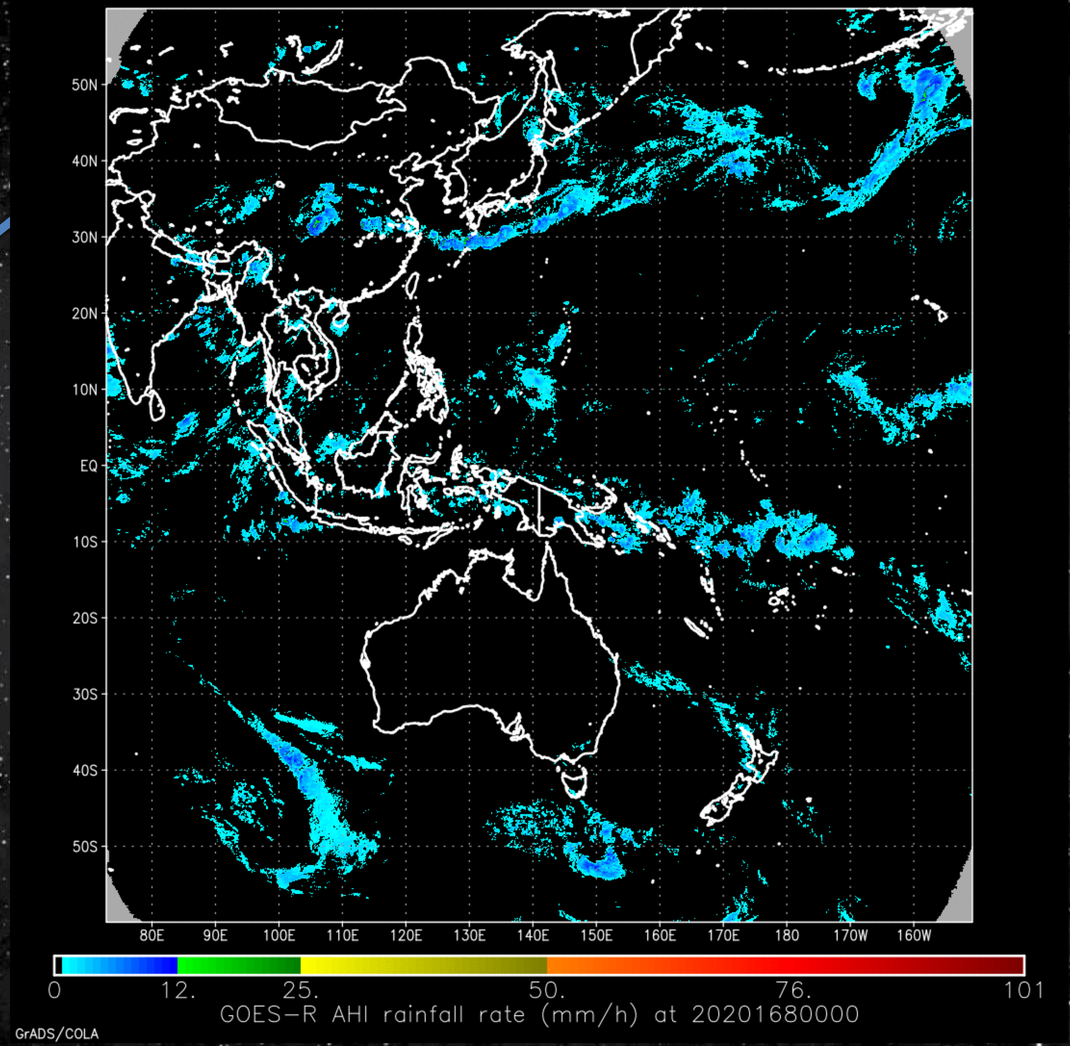
AWS S3 Explorer | noaa-himawari8

Show 50 entries

Object
AHI-L1b-FLDK/
AHI-L1b-Japan/
AHI-L1b-Target/
AHI-L2-FLDK-Clouds/
AHI-L2-FLDK-ISatSS/
AHI-L2-FLDK-RainfallRate/
AHI-L2-FLDK-SST/
AHI-L2-FLDK-Winds/
README.txt

Showing 1 to 9 of 9 entries

- The Rainfall Rate L2 product



Himawari data courtesy of JMA

AHI Data on AWS

- The Sea Surface Temperature L2 product
- Also available hourly on the Full Disk

noaa-himawari8.s3.amazonaws.com/index.html

AWS S3 Explorer | noaa-himawari8

Show 50 entries

Object
AHI-L1b-FLDK/
AHI-L1b-Japan/
AHI-L1b-Target/
AHI-L2-FLDK-Clouds/
AHI-L2-FLDK-ISatSS/
AHI-L2-FLDK-RainfallRate/
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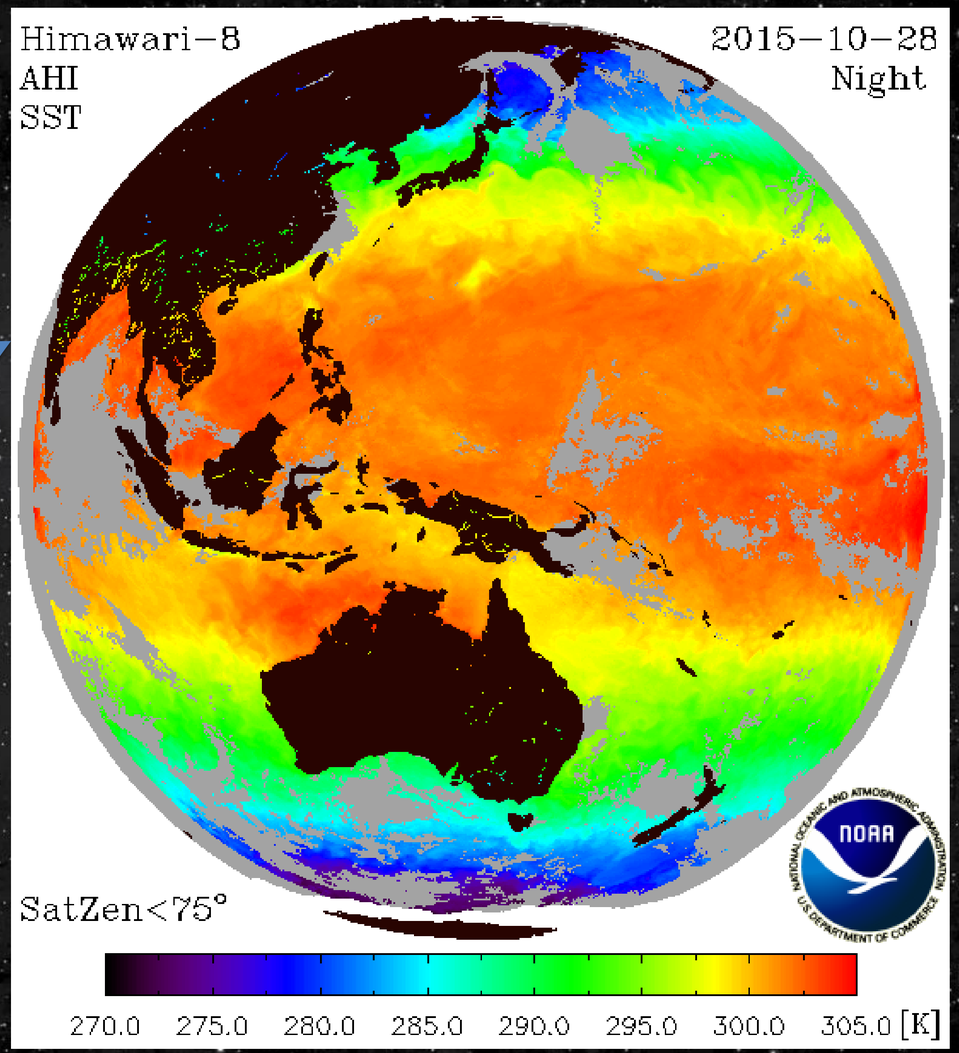

Himawari data courtesy of JMA

AHI Data on AWS

- The Atmospheric Motion Vectors L2 product
- Winds are available every 10 minutes in both netcdf and bufr format

noaa-himawari8.s3.amazonaws.com/index.html

AWS S3 Explorer | noaa-himawari8

Show 50 entries

Object
AHI-L1b-FLDK/
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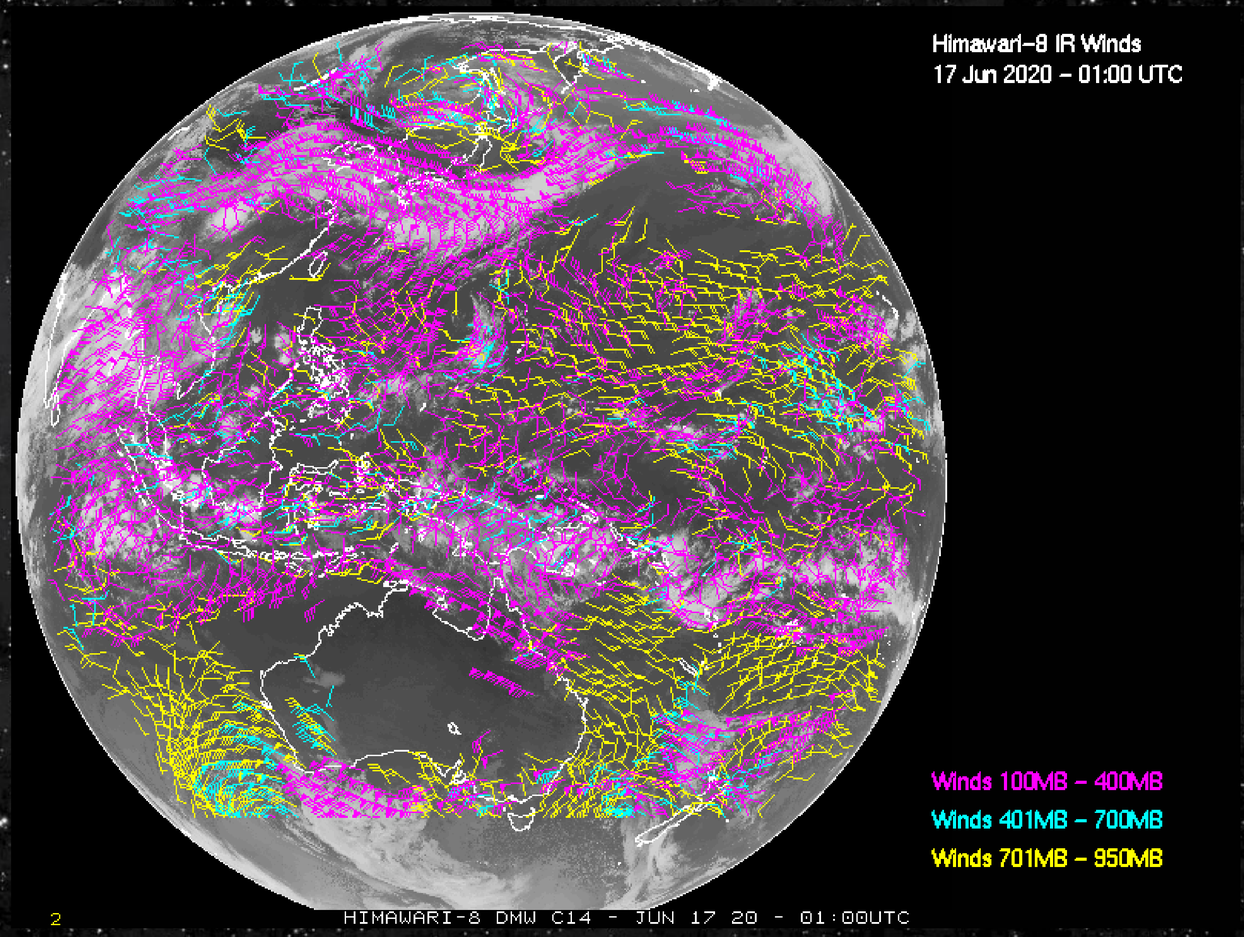

Himawari data courtesy of JMA