

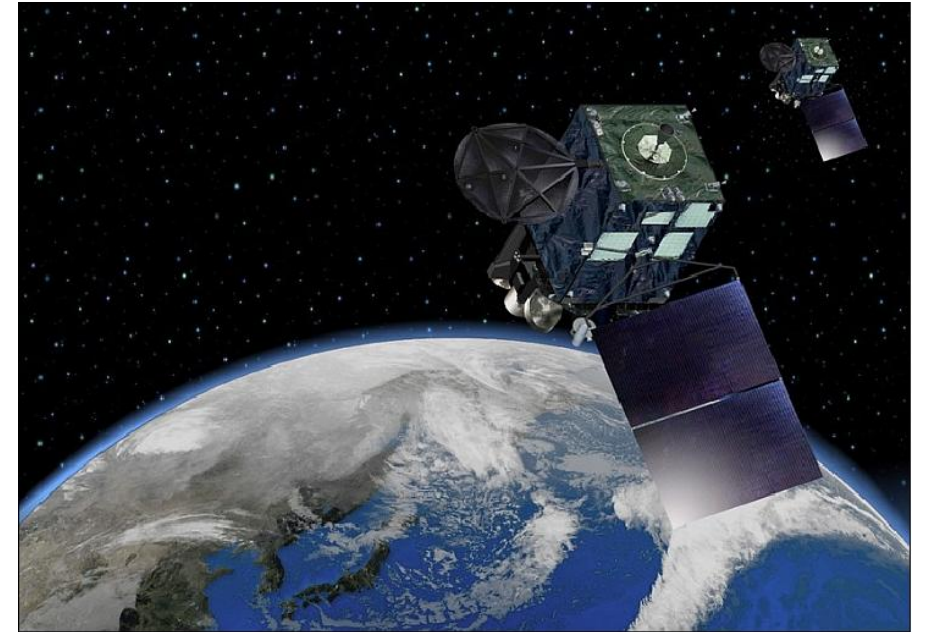
Chiba Campaign 2020

Daily Report 12.03

XUE ZIXUAN

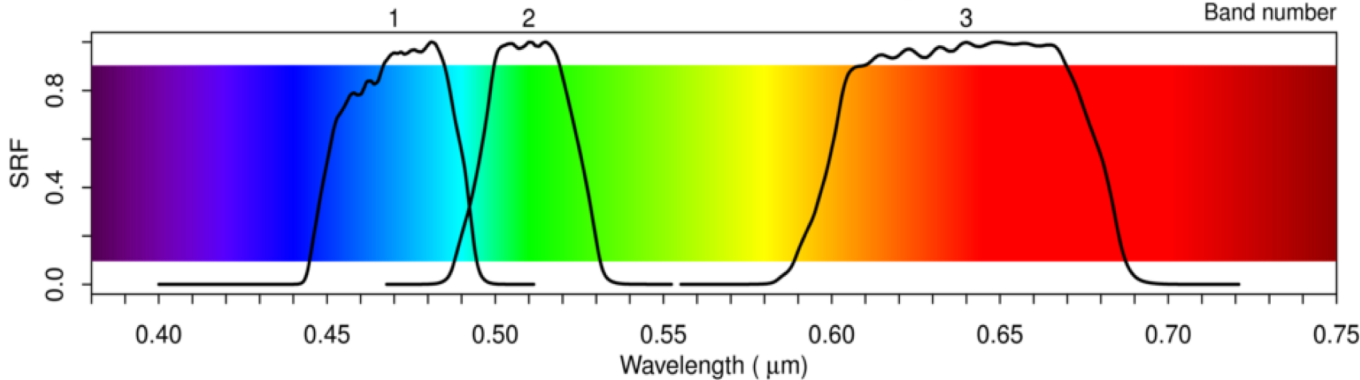
Outline

- **Himawari-8 visible bands**
- **AOT distribution over Japan Area**
- **AOT distribution over Chiba Area**



Himawari-8 Satellite Observation

SRFs of Himawari-8/AHI Visible Bands (September 2013)



RGB VALUES FOR VISIBLE WAVELENGTHS by Dan Bruton (<http://www.physics.sfasu.edu/astro/color/spectra.html>)

Himawari-8 Spectral Response Functions

Band	Wavelength (nm)	Resolution (km)
1	470	1.0
2	510	1.0
3	640	0.5

Himawari-8/9: Specification of Observation

Channels of the Advanced Himawari Imager (AHI)

Channel	Central Wavelength [μm]	Spatial Resolution
1	0.43 – 0.48	1 km
2	0.50 – 0.52	1 km
3	0.63 – 0.66	0.5 km
4	0.85 – 0.87	1 km
5	1.60 – 1.62	2 km
6	2.25 – 2.27	2 km
7	3.74 – 3.96	2 km
8	6.06 – 6.43	2 km
9	6.89 – 7.01	2 km
10	7.26 – 7.43	2 km
11	8.44 – 8.76	2 km
12	9.54 – 9.72	2 km
13	10.3 – 10.6	2 km
14	11.1 – 11.3	2 km
15	12.2 – 12.5	2 km
16	13.2 – 13.4	2 km

RGB
Composite
True Color Image

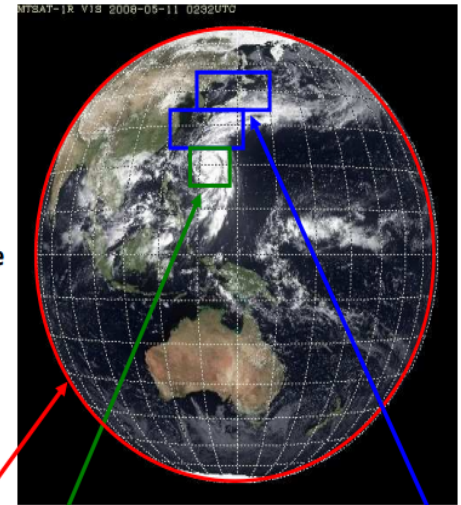
Water Vapor

SO₂

O₃

Atmospheric Windows

CO₂



Full disk
Interval: **10 minutes** (6 times per hour)

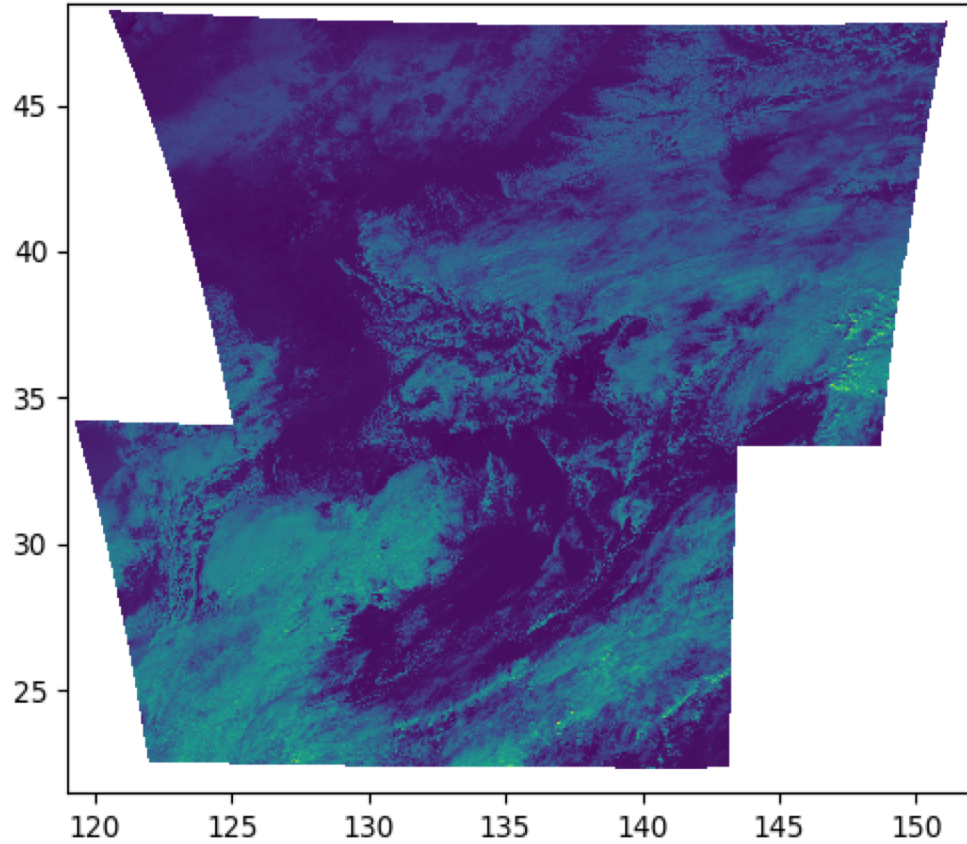
Japan area
Interval: **2.5 minutes** (4 times in 10 minutes)
Dimension: EW x NS: 2000 x 1000 km x 2

Target area
Interval: **2.5 minutes** (4 times in 10 minutes)
Dimension: EW x NS: 1000 x 1000 km

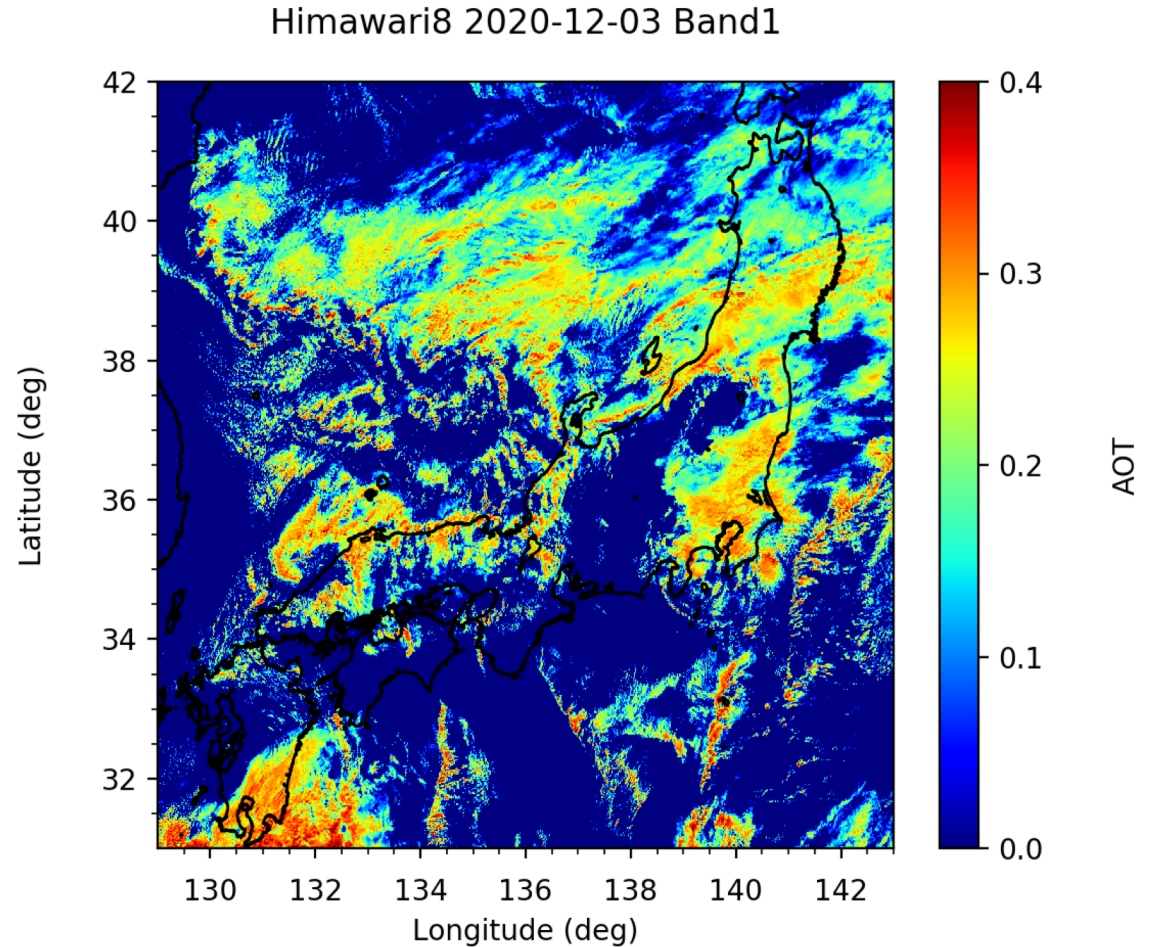
Number of Channels: 5 → 16

Interval: 30/60 min. → 10min. 2

Himawari-8 (12/03) – Japan Area



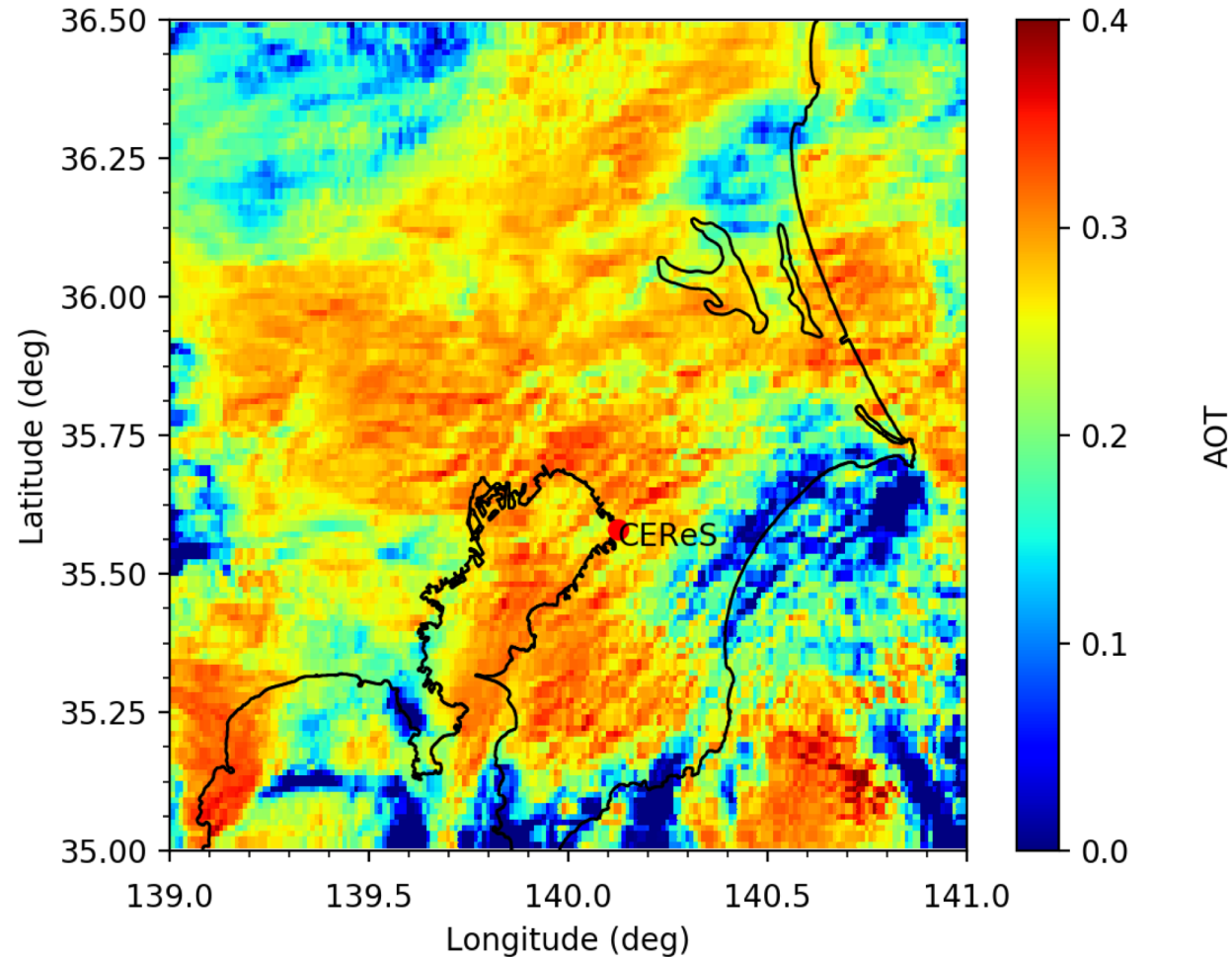
Coverage of the Japan Area



AOT Distribution over Japan Area

Himawari-8 (12/03) – Chiba Area

Himawari8 2020-12-03 Band1



**AOT Distribution over Chiba Area
(Cloudy Day)**