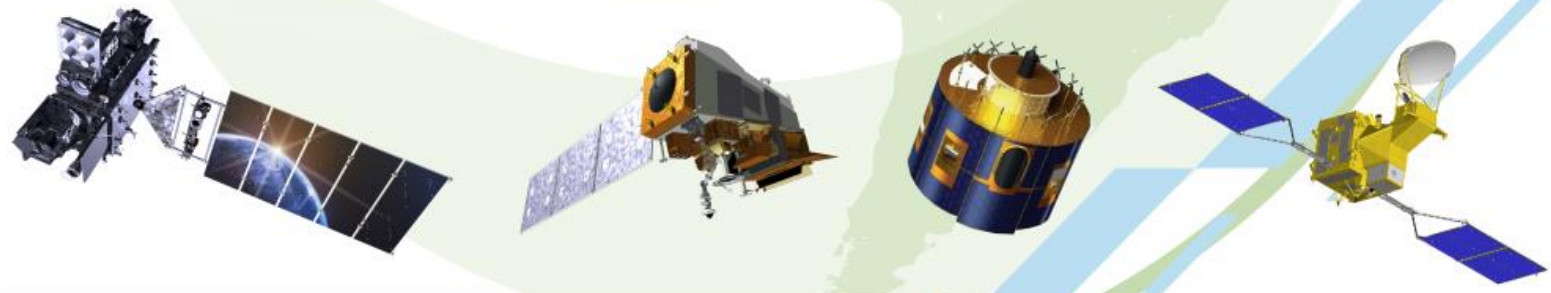


GNC-A

GEONETCast-Americas

Delivering Environmental Data to Users in the Americas

ILLUSTRATED PRODUCT CATALOG



■ **Illustrated Product Catalog**

May 02, 2023



Developed by INPE - National Institute for Space Research - Brazil
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Implementing GEOS in the Americas

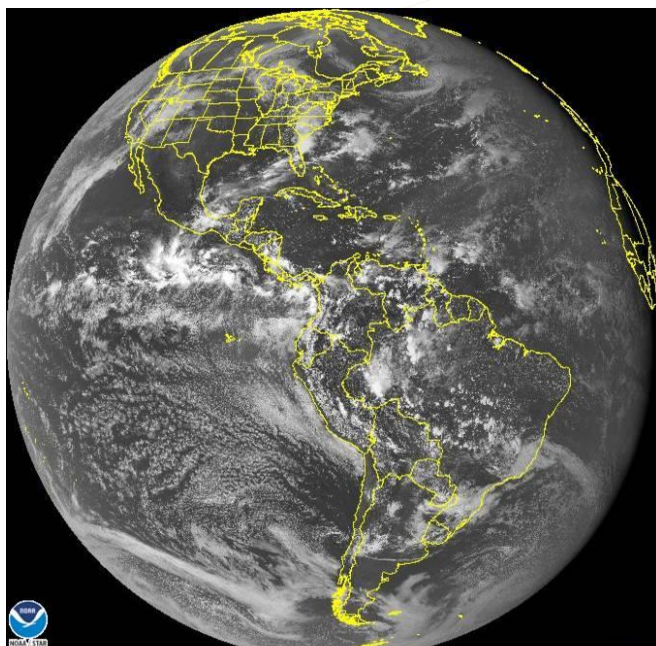
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1 GOES-16

1.1 ABI (Advanced Baseline Imager)

- **Band 01: 0.47 μm ("Blue")**



08 Oct 2021 18:20Z NESDIS/STAR GOES-East Band 01

Data Provider: NOAA-NESDIS

Folder: GOES-R-CMI-Imagery

Format: NetCDF4

Average Size: 80 MB

Frequency: 00, 10, 40 and 50 min (each hour)

Max n° of files a day: 96

Pixel info: Reflectance Factor

Satellite: GOES-16

Instrument: ABI (Advanced Baseline Imager)

Channel: 01

Band Nickname: "Blue"

Wavelength: 0.45 to 0.49 μm , cent. at 0.47 μm

Projection: Geos

Resolution: 1 km

Naming Convention:

OR_ABI-L2-CMIPF-M*C01_G16_s*_e*_c*.nc

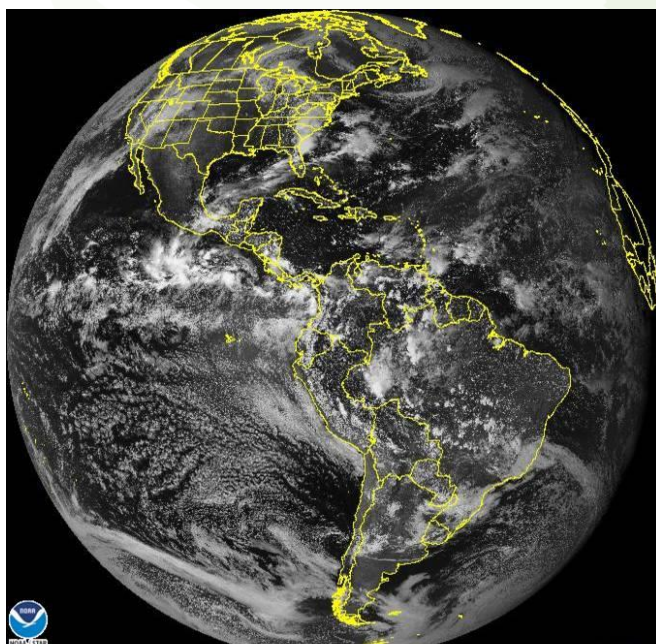


Python Script Available

Web Page:

www.goes-r.gov/products/baseline-cloud-moisture-imagery.html

- **Band 02: 0.64 μm ("Red")**



08 Oct 2021 18:20Z NESDIS/STAR GOES-East Band 02

Data Provider: NOAA-NESDIS

Folder: GOES-R-CMI-Imagery

Format: NetCDF4

Average Size: 80 MB

Frequency: 6x an hour

Max n° of files a day: 144

Pixel info: Reflectance Factor

Satellite: GOES-16

Instrument: ABI (Advanced Baseline Imager)

Channel: 02

Band Nickname: "Red"

Wavelength: 0.59 to 0.69 μm , cent. at 0.64 μm

Projection: Geos

Resolution: 1 km

Naming Convention:

OR_ABI-L2-CMIPF-M*C02_G16_s*_e*_c*.nc

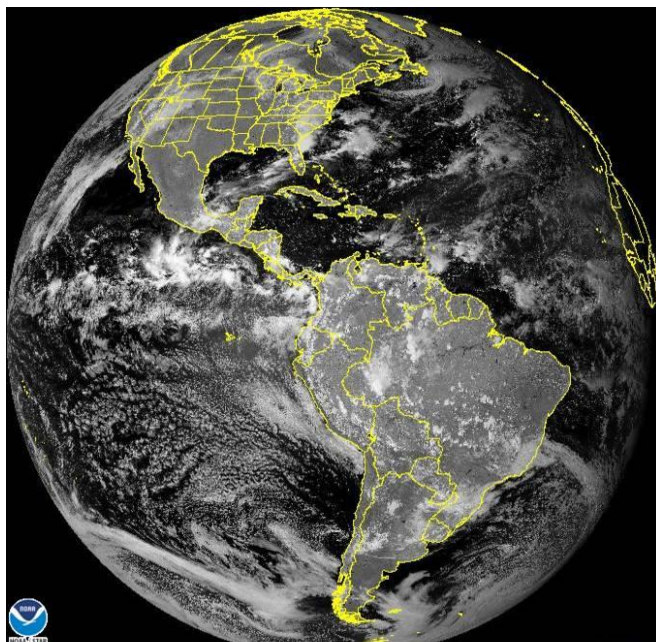


Python Script Available

Web Page:

www.goes-r.gov/products/baseline-cloud-moisture-imagery.html

- **Band 03: 0.86 μm ("Veggie")**



08 Oct 2021 18:20Z NESDIS/STAR GOES-East Band 03

Data Provider: NOAA-NESDIS
Folder: GOES-R-CMI-Imagery
Format: NetCDF4
Average Size: 80 MB
Frequency: 00, 10, 40 and 50 min (each hour)
Max n° of files a day: 96
Pixel info: Reflectance Factor
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Channel: 03
Band Nickname: "Veggie"
Wavelength: 0.846 to 0.885 μm , cent. at 0.865 μm
Projection: Geos
Resolution: 1 km
Naming Convention:
 OR_ABI-L2-CMIPF-M*C03_G16_s*_e*_c*.nc

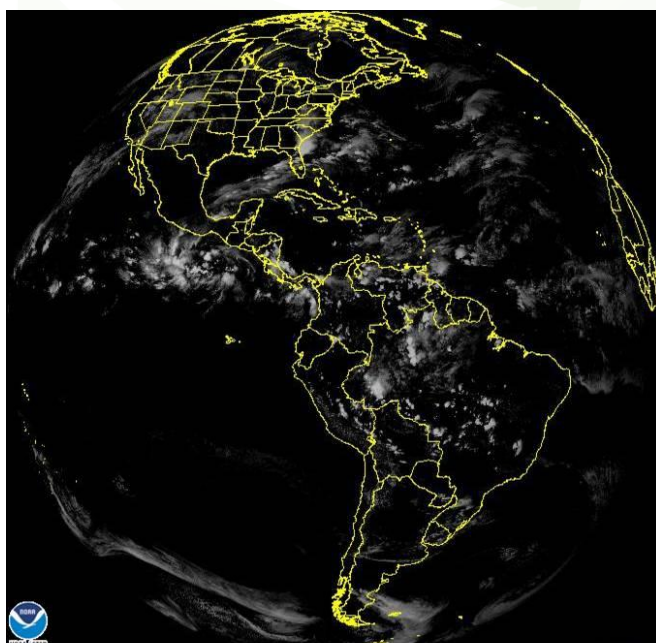


Python Script Available

Web Page:

www.goes-r.gov/products/baseline-cloud-moisture-imagery.html

- **Band 04: 1.37 μm ("Cirrus")**



08 Oct 2021 18:20Z NESDIS/STAR GOES-East Band 04

Data Provider: NOAA-NESDIS
Folder: GOES-R-CMI-Imagery
Format: NetCDF4
Average Size: 10 MB
Frequency: 00, 10, 40 and 50 min (each hour)
Max n° of files a day: 96
Pixel info: Reflectance Factor
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Channel: 04
Band Nickname: "Cirrus"
Wavelength: 1.371 to 1.386 μm , cent. at 1.378 μm
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-CMIPF-M*C04_G16_s*_e*_c*.nc

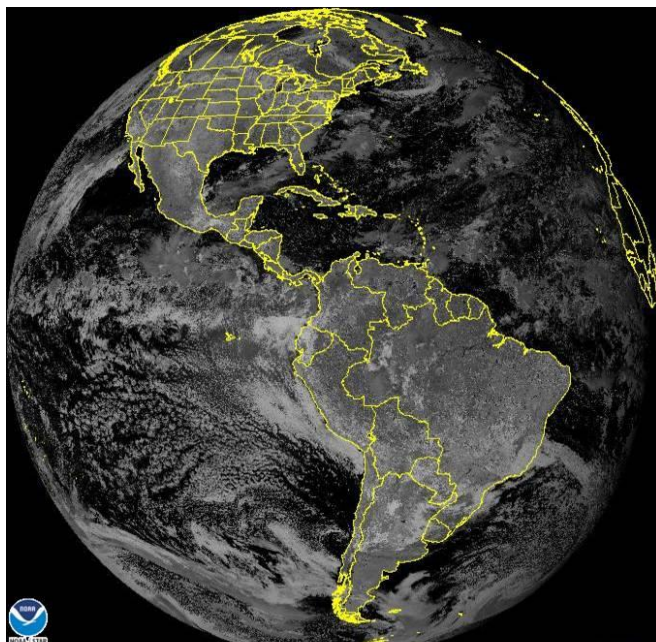


Python Script Available

Web Page:

www.goes-r.gov/products/baseline-cloud-moisture-imagery.html

- **Band 05: 1.60 μm ("Snow / Ice")**



Data Provider: NOAA-NESDIS
Folder: GOES-R-CMI-Imagery
Format: NetCDF4
Average Size: 80 MB
Frequency: 00, 10, 40 and 50 min (each hour)
Max n° of files a day: 96
Pixel info: Reflectance Factor
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Channel: 05
Band Nickname: "Snow / Ice"
Wavelength: 1.58 to 1.64 μm , cent. at 1.61 μm
Projection: Geos
Resolution: 1 km
Naming Convention:
 OR_ABI-L2-CMIPF-M*C05_G16_s*_e*_c*.nc

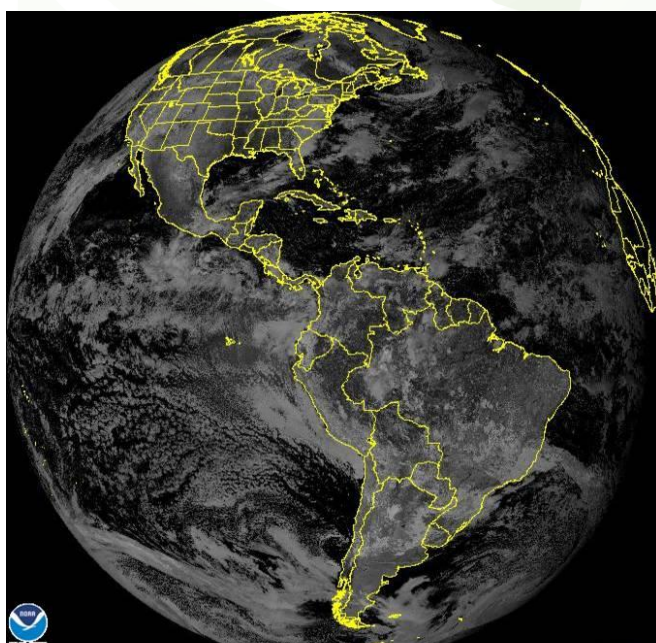


Python Script Available

Web Page:

www.goes-r.gov/products/baseline-cloud-moisture-imagery.html

- **Band 06: 2.25 μm ("Cloud Particle Size")**



Data Provider: NOAA-NESDIS
Folder: GOES-R-CMI-Imagery
Format: NetCDF4
Average Size: 30 MB
Frequency: 00, 10, 40 and 50 min (each hour)
Max n° of files a day: 96
Pixel info: Reflectance Factor
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Channel: 06
Band Nickname: "Cloud Particle Size"
Wavelength: 2.225 to 2.275 μm , cent. at 2.25 μm
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-CMIPF-M*C06_G16_s*_e*_c*.nc

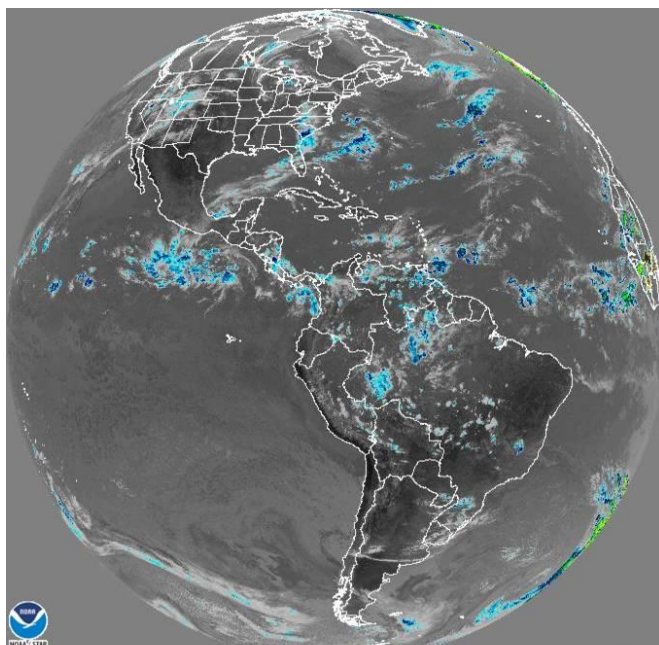


Python Script Available

Web Page:

www.goes-r.gov/products/baseline-cloud-moisture-imagery.html

- Band 07: 3.9 μm ("Shortwave Window")**



08 Oct 2021 18:20Z NESDIS/STAR GOES-East Band 07

Data Provider: NOAA-NESDIS
Folder: GOES-R-CMI-Imagery
Format: NetCDF4
Average Size: 30 MB
Frequency: 6x an hour
Max n° of files a day: 144
Pixel info: Brightness Temperature
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Channel: 07
Band Nickname: "Shortwave Window"
Wavelength: 3.80 to 4.00 μm , cent. at 3.90 μm
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-CMIPF-M*C07_G16_s*_e*_c*.nc

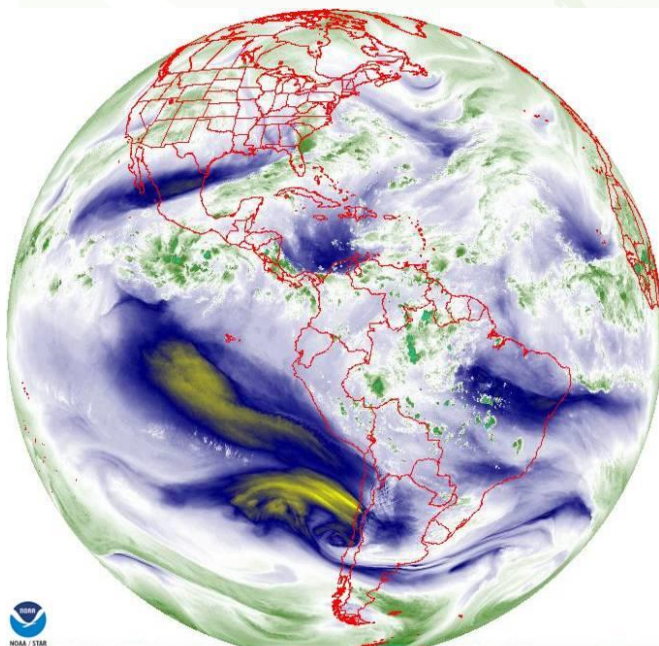


Python Script Available

Web Page:

www.goes-r.gov/products/baseline-cloud-moisture-imagery.html

- Band 08: 6.2 μm ("Upper-Level Tropospheric Water Vapor")**



08 Oct 2021 18:20Z NESDIS/STAR GOES-East Band 08

Data Provider: NOAA-NESDIS
Folder: GOES-R-CMI-Imagery
Format: NetCDF4
Average Size: 20 MB
Frequency: 6x an hour
Max n° of files a day: 144
Pixel info: Brightness Temperature
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Channel: 08
Band Nickname: "Upper-Level Tropospheric Water Vapor"
Wavelength: 5.77 to 6.6 μm , cent. at 6.19 μm
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-CMIPF-M*C08_G16_s*_e*_c*.nc

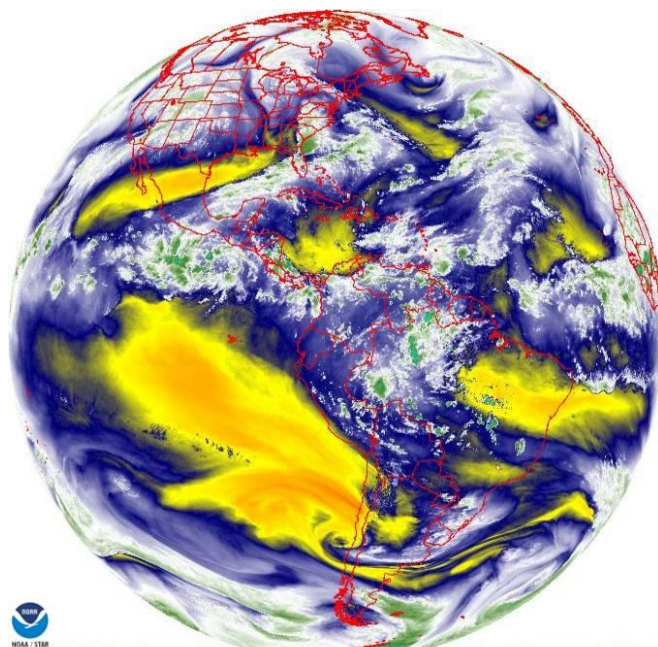


Python Script Available

Web Page:

www.goes-r.gov/products/baseline-cloud-moisture-imagery.html

- **Band 09: 6.9 μm ("Mid-Level Tropospheric Water Vapor")**



08 Oct 2021 18:20Z NESDIS/STAR GOES-East Band 09

Data Provider: NOAA-NESDIS
Folder: GOES-R-CMI-Imagery
Format: NetCDF4
Average Size: 20 MB
Frequency: 6x an hour
Max n° of files a day: 144
Pixel info: Brightness Temperature
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Channel: 09
Band Nickname: "Mid-Level Tropospheric Water Vapor"
Wavelength: 6.75 to 7.15 μm , cent. at 6.95 μm
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-CMIPF-M*C09_G16_s*_e*_c*.nc

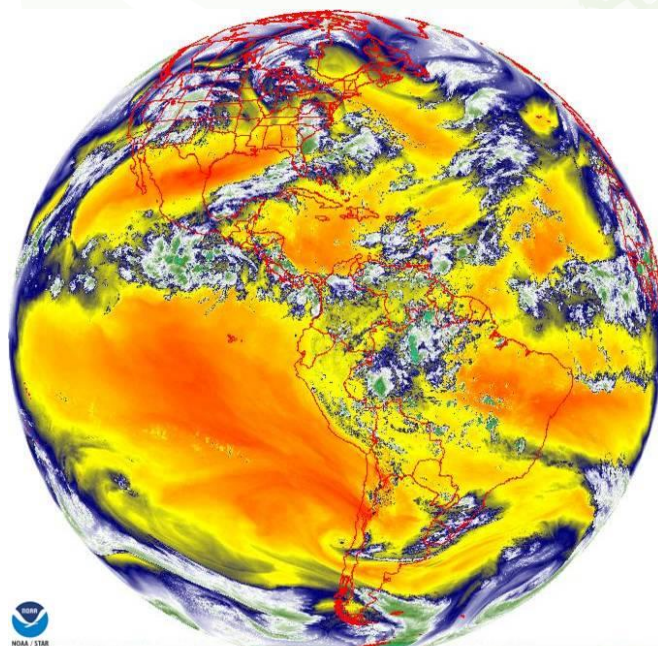


Python Script Available

Web Page:

www.goes-r.gov/products/baseline-cloud-moisture-imagery.html

- **Band 10: 7.3 μm ("Lower-Level Water Vapor")**



08 Oct 2021 18:20Z NESDIS/STAR GOES-East Band 10

Data Provider: NOAA-NESDIS
Folder: GOES-R-CMI-Imagery
Format: NetCDF4
Average Size: 20 MB
Frequency: 6x an hour
Max n° of files a day: 144
Pixel info: Brightness Temperature
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Channel: 10
Band Nickname: "Lower-Level Water Vapor"
Wavelength: 7.24 to 7.44 μm , cent. at 7.34 μm
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-CMIPF-M*C10_G16_s*_e*_c*.nc

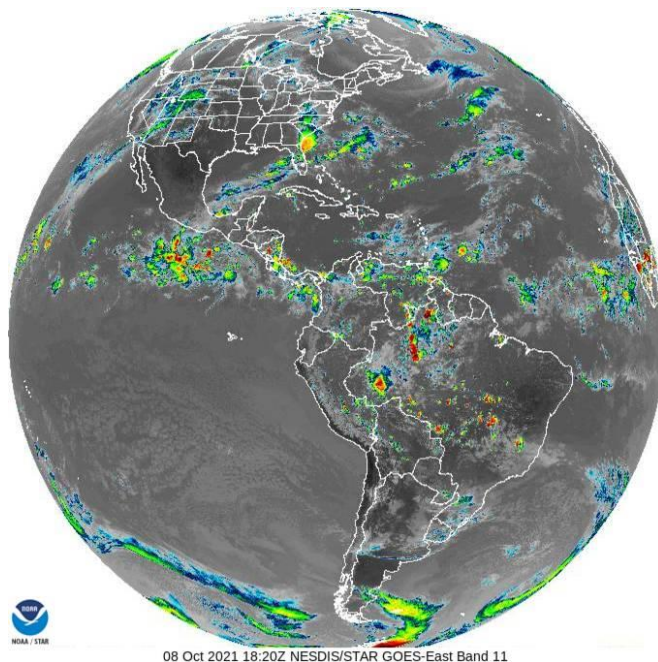


Python Script Available

Web Page:

www.goes-r.gov/products/baseline-cloud-moisture-imagery.html

- **Band 11: 8.5 μm ("Cloud-Top Phase")**

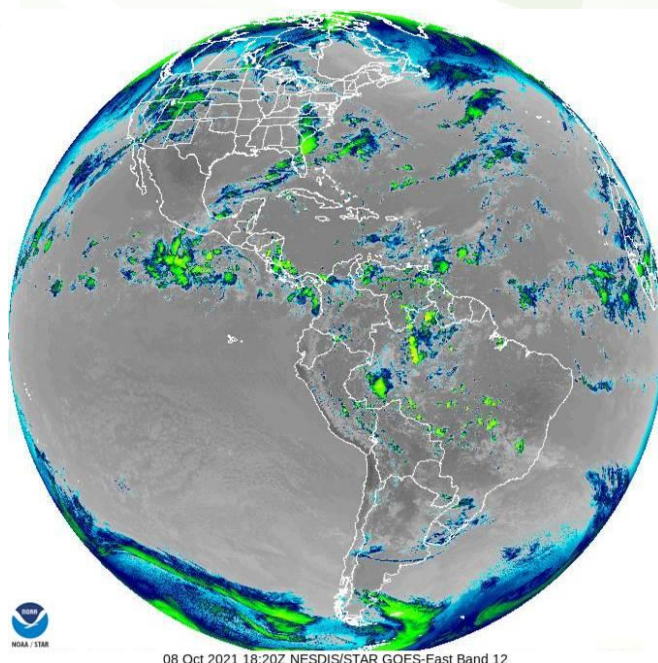


Data Provider: NOAA-NESDIS
Folder: GOES-R-CMI-Imagery
Format: NetCDF4
Average Size: 30 MB
Frequency: 00, 10, 40 and 50 min (each hour)
Max n° of files a day: 96
Pixel info: Brightness Temperature
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Channel: 11
Band Nickname: "Cloud-Top Phase"
Wavelength: 8.3 to 8.7 μm , cent. at 8.5 μm
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-CMIPF-M*C11_G16_s*_e*_c*.nc

 Python Script Available

Web Page:
www.goes-r.gov/products/baseline-cloud-moisture-imagery.html

- **Band 12: 9.61 μm ("Ozone")**

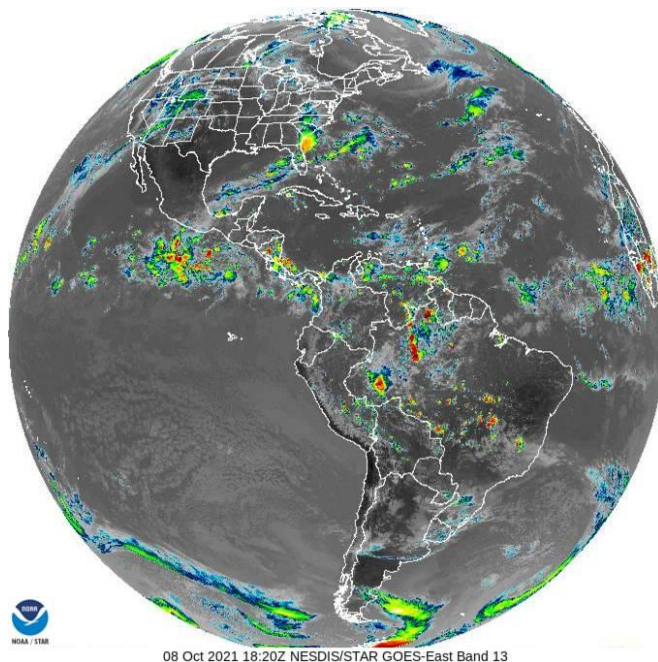


Data Provider: NOAA-NESDIS
Folder: GOES-R-CMI-Imagery
Format: NetCDF4
Average Size: 30 MB
Frequency: 00, 10, 40 and 50 min (each hour)
Max n° of files a day: 96
Pixel info: Brightness Temperature
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Channel: 12
Band Nickname: "Ozone"
Wavelength: 9.42 to 9.80 μm , cent. at 9.61 μm
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-CMIPF-M*C12_G16_s*_e*_c*.nc

 Python Script Available

Web Page:
www.goes-r.gov/products/baseline-cloud-moisture-imagery.html

- Band 13: 10.3 μm ("Clean" IR Longwave Window)**



Data Provider: NOAA-NESDIS
Folder: GOES-R-CMI-Imagery
Format: NetCDF4
Average Size: 30 MB
Frequency: 6 files per hour
Max n° of files a day: 144
Pixel info: Brightness Temperature
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Channel: 13
Band Nickname: "Clean" IR Longwave Window
Wavelength: 10.10 to 10.60 μm , cent. at 10.35 μm
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-CMIPF-M*C13_G16_s*_e*_c*.nc

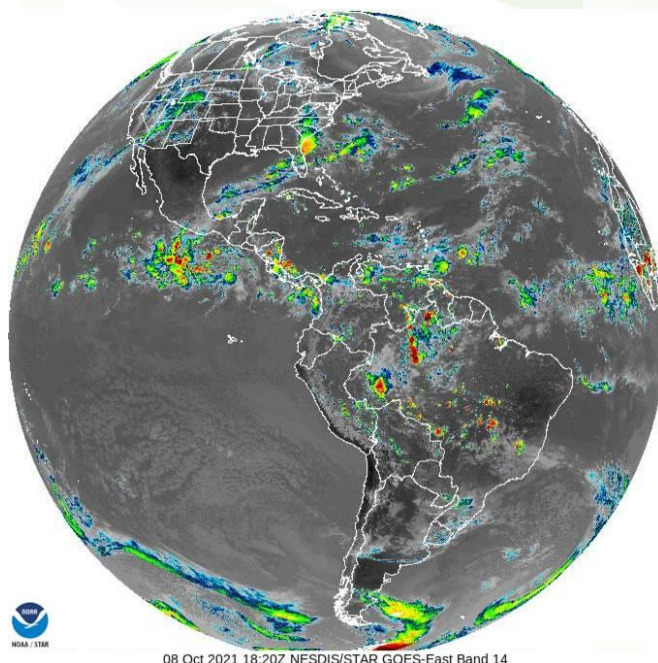


Python Script Available

Web Page:

www.goes-r.gov/products/baseline-cloud-moisture-imagery.html

- Band 14: 11.2 μm ("IR Longwave Window")**



Data Provider: NOAA-NESDIS
Folder: GOES-R-CMI-Imagery
Format: NetCDF4
Average Size: 30 MB
Frequency: 6 files per hour
Max n° of files a day: 144
Pixel info: Brightness Temperature
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Channel: 14
Band Nickname: "IR Longwave Window"
Wavelength: 10.80 to 11.6 μm , cent. at 11.20 μm
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-CMIPF-M*C14_G16_s*_e*_c*.nc

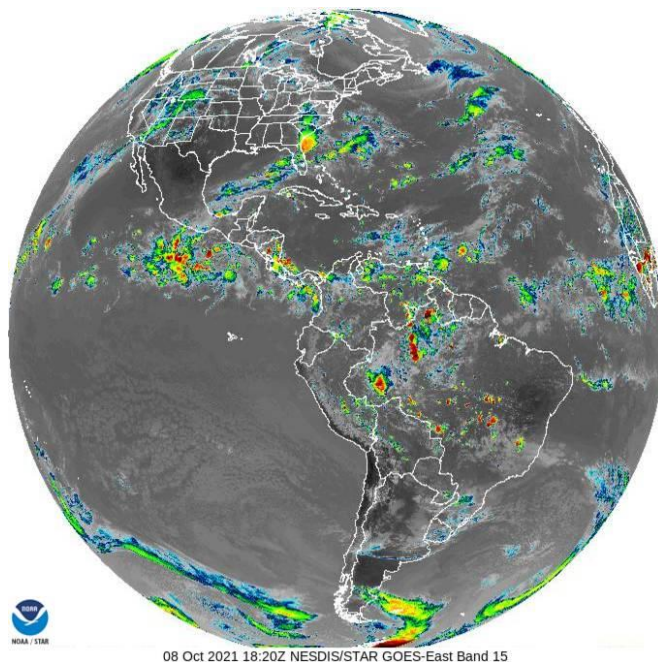


Python Script Available

Web Page:

www.goes-r.gov/products/baseline-cloud-moisture-imagery.html

- Band 15: 12.2 μm ("Dirty" Longwave Window)**



Data Provider: NOAA-NESDIS
Folder: GOES-R-CMI-Imagery
Format: NetCDF4
Average Size: 30 MB
Frequency: 6 files per hour
Max n° of files a day: 144
Pixel info: Brightness Temperature
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Channel: 15
Band Nickname: "Dirty" Longwave Window"
Wavelength: 11.80 to 12.8 μm , cent. at 12.30 μm
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-CMIPF-M*C15_G16_s*_e*_c*.nc

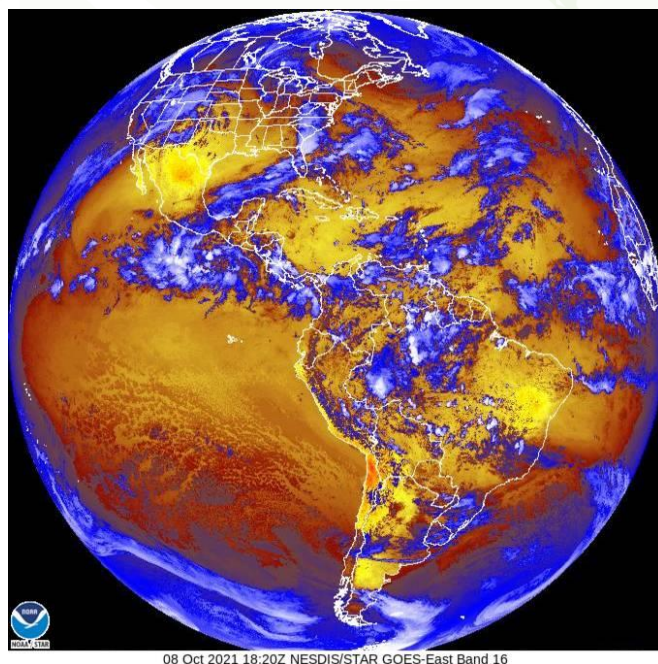


Python Script Available

Web Page:

www.goes-r.gov/products/baseline-cloud-moisture-imagery.html

- Band 16: 13.3 μm ("CO2" Longwave Infrared)**



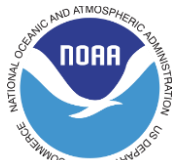
Data Provider: NOAA-NESDIS
Folder: GOES-R-CMI-Imagery
Format: NetCDF4
Average Size: 30 MB
Frequency: 00, 10, 40 and 50 min (each hour)
Max n° of files a day: 96
Pixel info: Brightness Temperature
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Channel: 16
Band Nickname: "CO2" Longwave Infrared"
Wavelength: 13.00 to 13.60 μm , cent. at 13.30 μm
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-CMIPF-M*C16_G16_s*_e*_c*.nc



Python Script Available

Web Page:

www.goes-r.gov/products/baseline-cloud-moisture-imagery.html



GEONETCast-Americas

ILLUSTRATED PRODUCT CATALOG



Note - On the file naming convention for all CMI files:

OR: Operational System Real-Time Data

ABI-L2: Advanced Baseline Imager Level 2+

CMIPF: Cloud and Moisture Image Product - Full Disk

M3 / M4 / M6: ABI Mode 3 / ABI Mode 4 / ABI Mode 6

C02: Channel number (Band 2 in this example)

G16: GOES-16

sYYYYJJJHHMMSSs: Observation Start

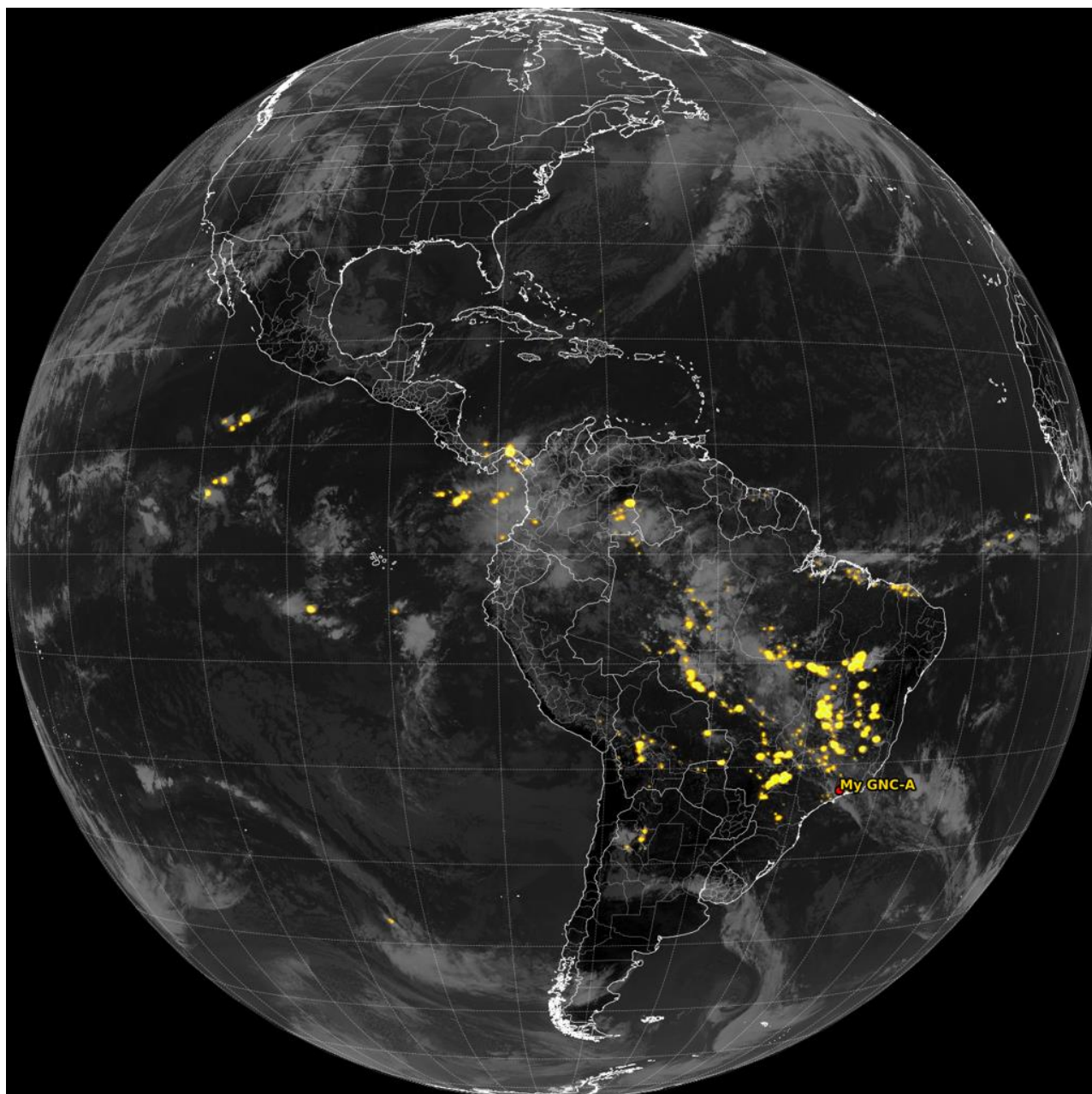
eYYYYJJJHHMMSSs: Observation End

cYYYYJJJHHMMSSs: File Creation



1.2 GLM (Geostationary Lightning Mapper)

- 20 s GLM Lightning Detection (Events, Groups and Flashes)



Data Provider: NOAA-NESDIS

Folder: GOES-R-GLM-Products

Format: NetCDF4

Average Size: 300 KB

Frequency: 20 seconds

Max n° of files a day: 4320

Satellite: GOES-16

Instrument: GLM (Geostationary Lightning Mapper)

Resolution: 8 x 8 km

Naming Convention:

OR_GLM-L2-LCFA_G16_s*_e*_c*.nc



Python Script Available

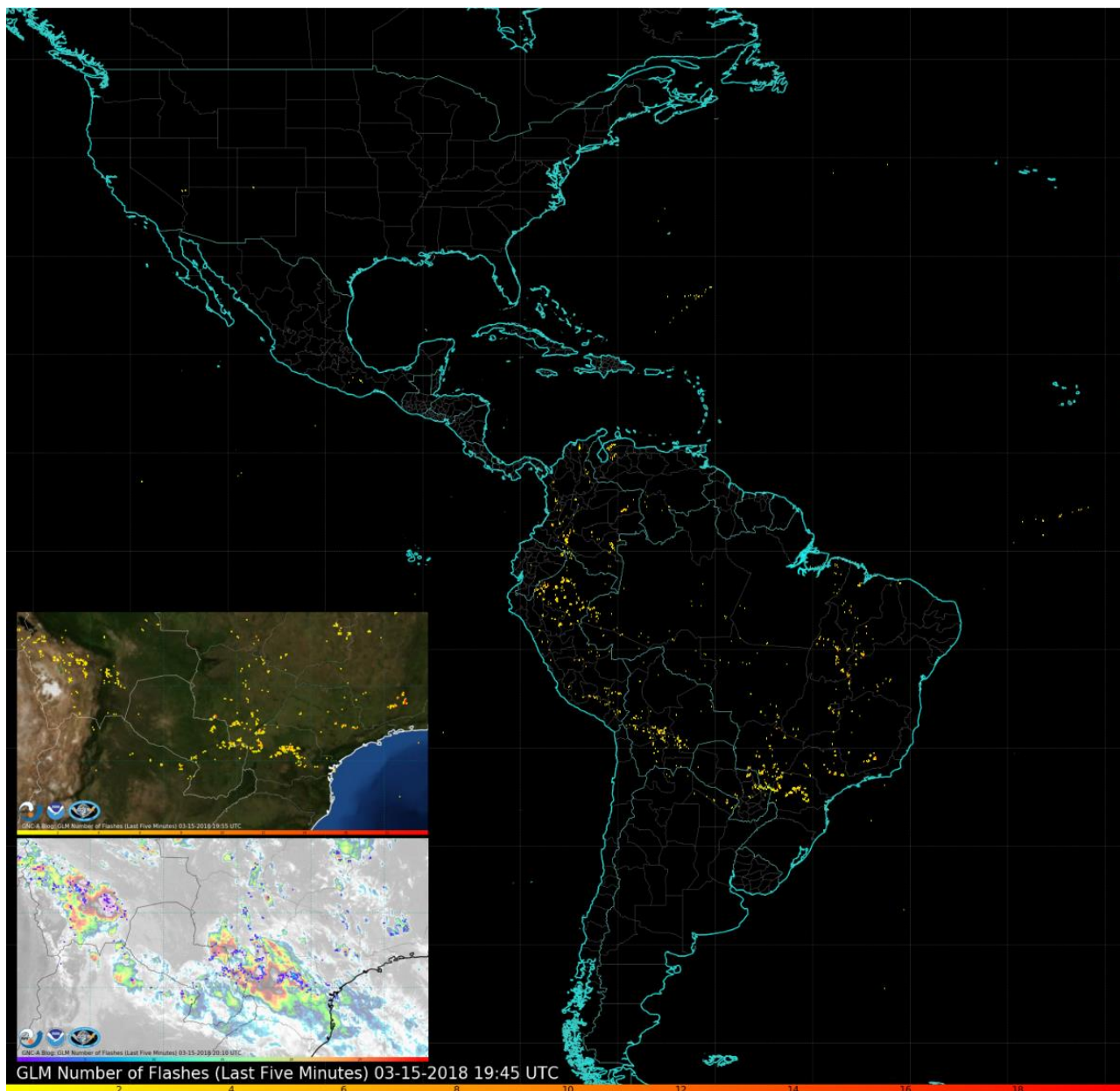
Where:

sYYYYJJJHHMMSSs: Observation Start

eYYYYJJJHHMMSSs: Observation End

cYYYYJJJHHMMSSs: File Creation

- 5 Minute GLM Density (Events, Groups and Flashes)



Data Provider: INPE
Folder: GOES-R-GLM-Products
Format: NetCDF4
Average Size: 300 KB
Frequency: 5 minutes
Max n° of files a day: 288
Satellite: GOES-16
Instrument: GLM (Geostationary Lightning Mapper)
Resolution: 8 x 8 km

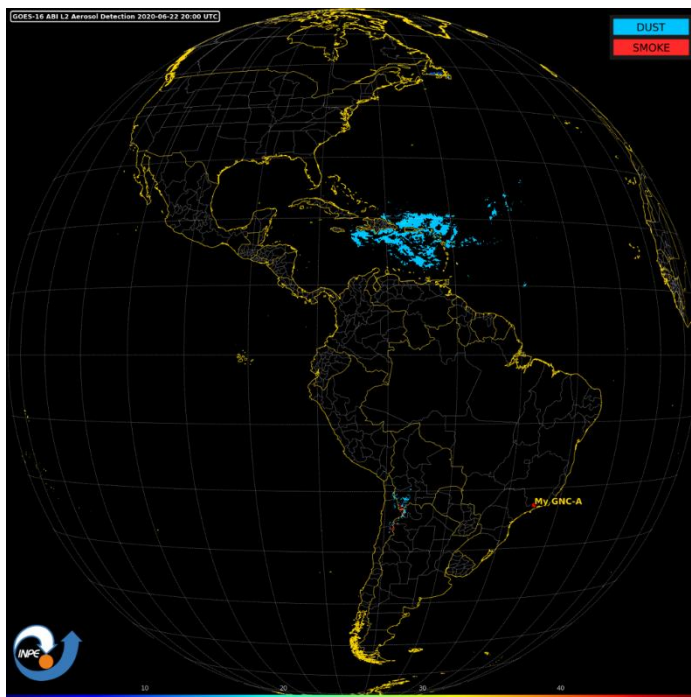
Naming Convention:
 GLM_DENS_YYYYMMDDHHMN00.nc

 Python Script Available

Where:
YYYY: Year
MM: Month
DD: Day
HHMN: Hours and Minutes (UTC)

1.3 Data Products

- Aerosol Detection (Smoke and Dust)**

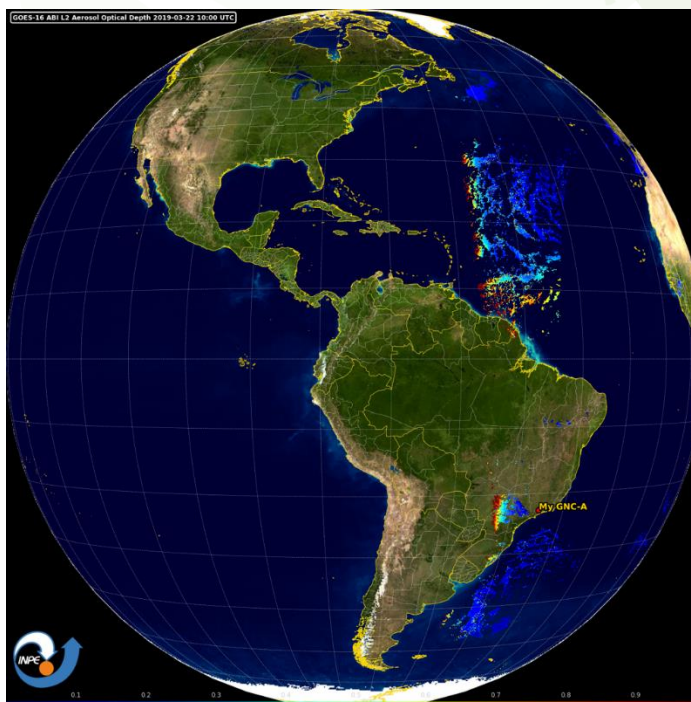


Data Provider: NOAA-NESDIS
Folder: GOES-R-Level-2-Products
Format: NetCDF4
Average Size: 3.8 MB
Frequency: 00, 10, 30 and 40 min (each hour)
Max n° of files a day: 96
Pixel Unit: Dust / Smoke Flags
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-ADPF-M*_G16_s*_e*_c*.nc

 Python Script Available

Web Page:
www.goes-r.gov/products/baseline-aerosol-detection.html

- Aerosol Optical Depth**

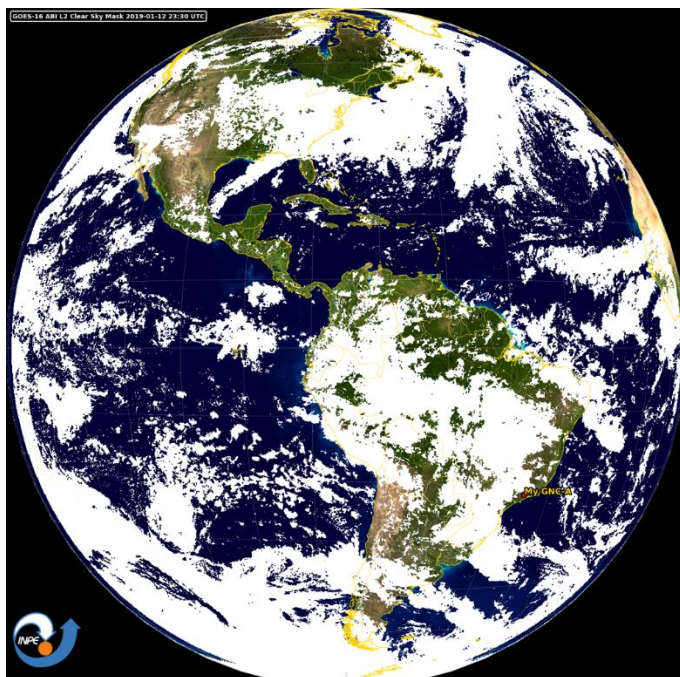


Data Provider: NOAA-NESDIS
Folder: GOES-R-Level-2-Products
Format: NetCDF4
Average Size: 6.8 MB
Frequency: 00, 10, 30 and 40 min (each hour)
Max n° of files a day: 96
Pixel Unit: m
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-AODF-M*_G16_s*_e*_c*.nc

 Python Script Available

Web Page:
www.goes-r.gov/products/baseline-aerosol-opt-depth.html

- **Clear Sky Masks**



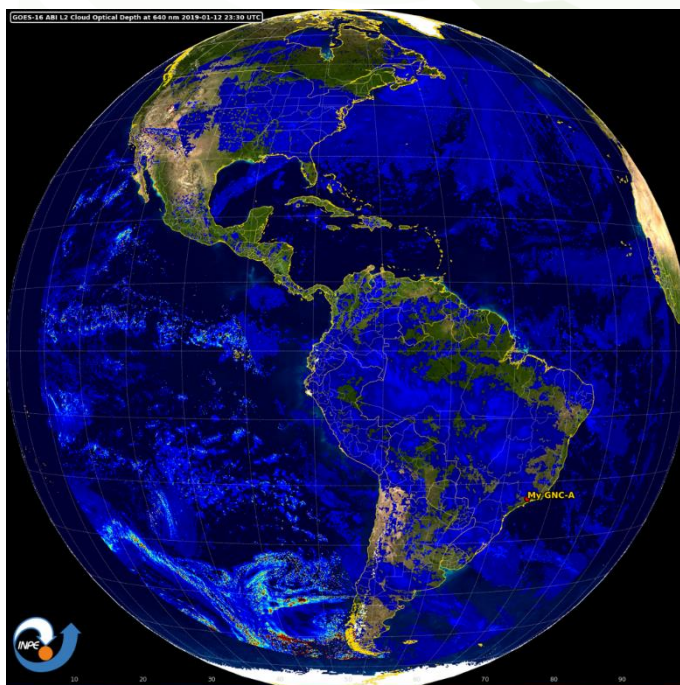
Data Provider: NOAA-NESDIS
Folder: GOES-R-Level-2-Products
Format: NetCDF4
Average Size: 20 MB
Frequency: 00, 10, 30 and 40 min (each hour)
Max n° of files a day: 96
Pixel Info: 0 (No Clouds) / 1 (Clouds)
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-ACMF-M*_G16_s*_e*_c*.nc

 Python Script Available

Web Page:

www.goes-r.gov/products/baseline-clear-sky-mask.html

- **Cloud Optical Depth**



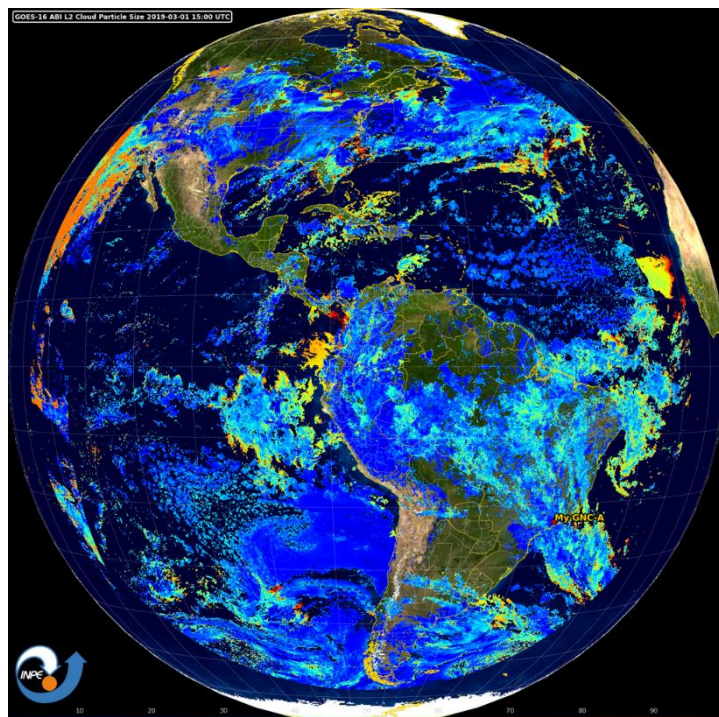
Data Provider: NOAA-NESDIS
Folder: GOES-R-Level-2-Products
Format: NetCDF4
Average Size: 28 MB
Frequency: 00, 10, 30 and 40 min (each hour)
Max n° of files a day: 96
Pixel Info: Cloud Optical Depth at 640 nm
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Projection: Geos
Resolution: 4 km
Naming Convention:
 OR_ABI-L2-CODF-M*_G16_s*_e*_c*.nc

 Python Script Available

Web Page:

www.goes-r.gov/products/baseline-cloud-opt-depth.html

- **Cloud Particle Size Distribution**

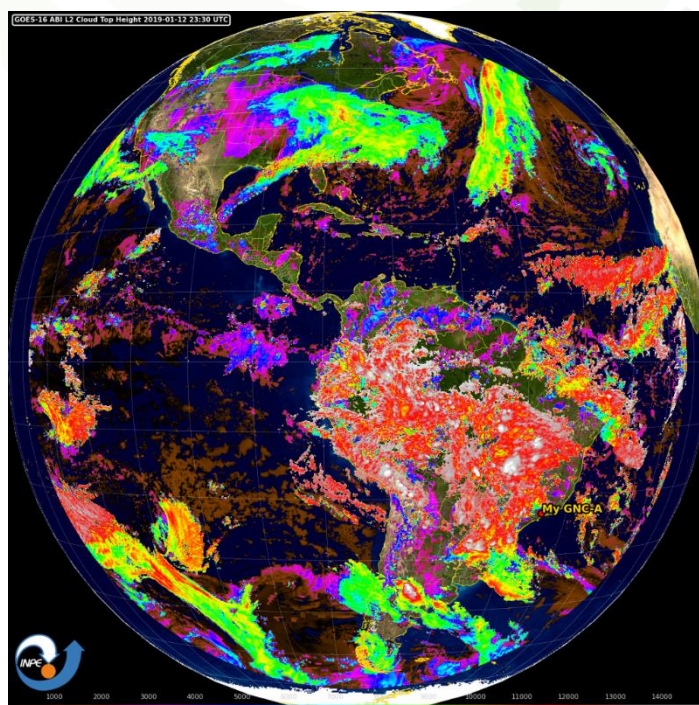


Data Provider: NOAA-NESDIS
Folder: GOES-R-Level-2-Products
Format: NetCDF4
Average Size: 21 MB
Frequency: 00, 10, 30 and 40 min (each hour)
Max n° of files a day: 96
Pixel Info: Cloud Particle Size
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-CPSF-M*_G16_s*_e*_c*.nc

 Python Script Available

Web Page:
www.goes-r.gov/products/baseline-cloud-opt-depth.html

- **Cloud Top Height**

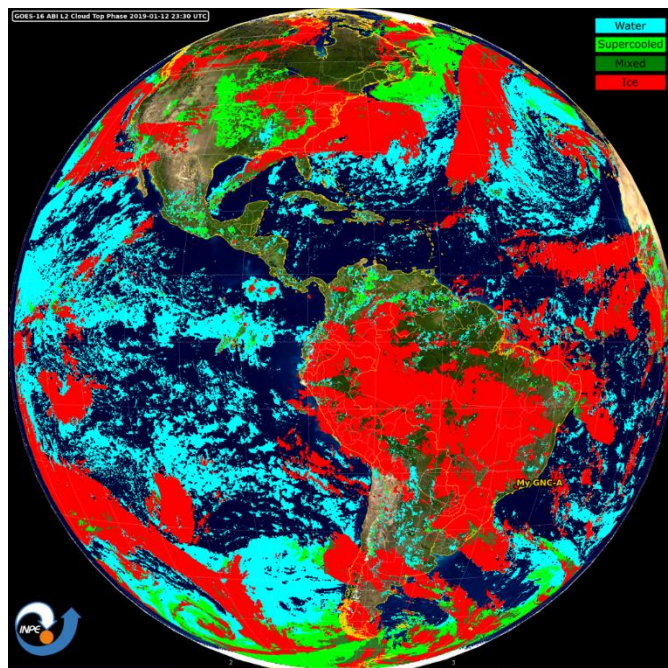


Data Provider: NOAA-NESDIS
Folder: GOES-R-Level-2-Products
Format: NetCDF4
Average Size: 7.6 MB
Frequency: 00, 10, 30 and 40 min (each hour)
Max n° of files a day: 96
Pixel Unit: m
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Projection: Geos
Resolution: 10 km
Naming Convention:
 OR_ABI-L2-ACHAF-M*_G16_s*_e*_c*.nc

 Python Script Available

Web Page:
www.goes-r.gov/products/baseline-cloud-top-height-cloud-layer.html

- **Cloud Top Phase**

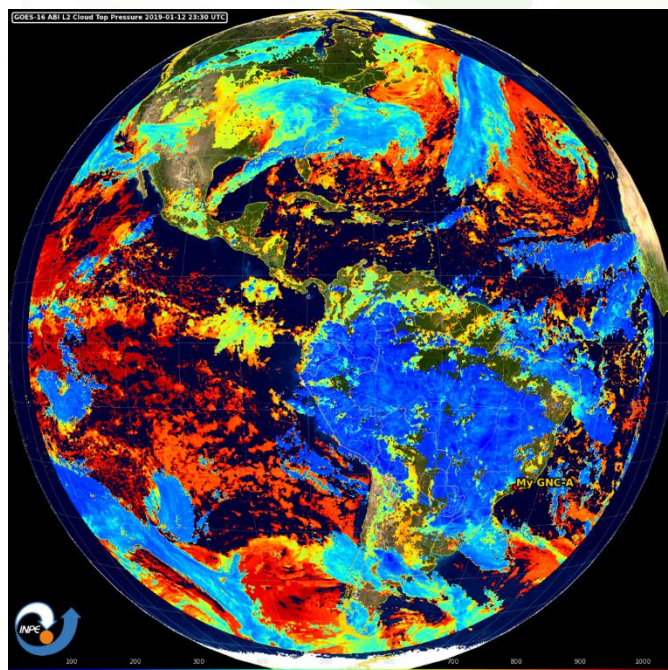


Data Provider: NOAA-NESDIS
Folder: GOES-R-Level-2-Products
Format: NetCDF4
Average Size: 7.6 MB
Frequency: 00, 10, 30 and 40 min (each hour)
Max n° of files a day: 96
Pixel Info: 1 (Water), 2 (Supercooled), 3 (Mixed), 4 (Ice), 5 (Uncertain)
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-ACTPF-M*_G16_s*_e*_c*.nc

 Python Script Available

Web Page:
www.goes-r.gov/products/baseline-cloud-phase.html

- **Cloud Top Pressure**

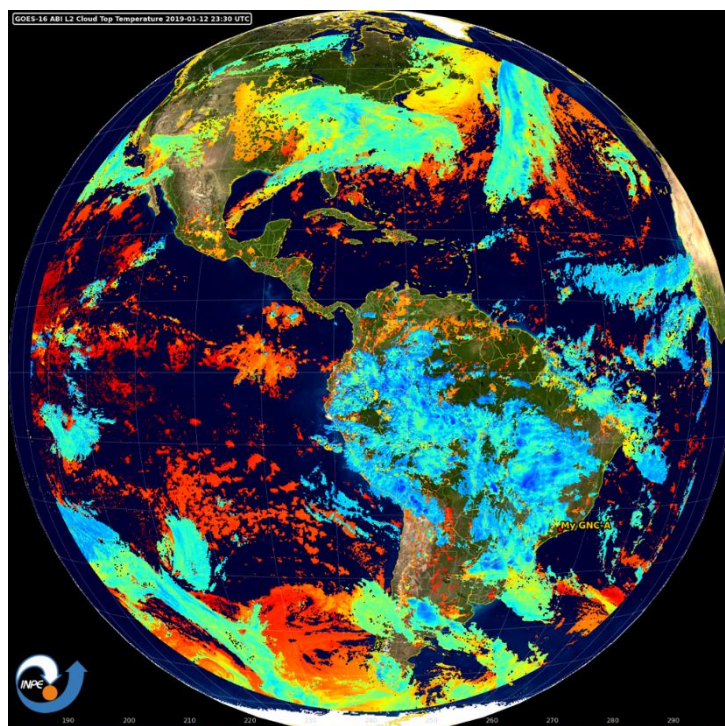


Data Provider: NOAA-NESDIS
Folder: GOES-R-Level-2-Products
Format: NetCDF4
Average Size: 1.5 MB
Frequency: 00, 10, 30 and 40 min (each hour)
Max n° of files a day: 96
Pixel Info: hPa
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-CTPF-M*_G16_s*_e*_c*.nc

 Python Script Available

Web Page:
www.goes-r.gov/products/baseline-cloud-phase.html

- **Cloud Top Temperature**

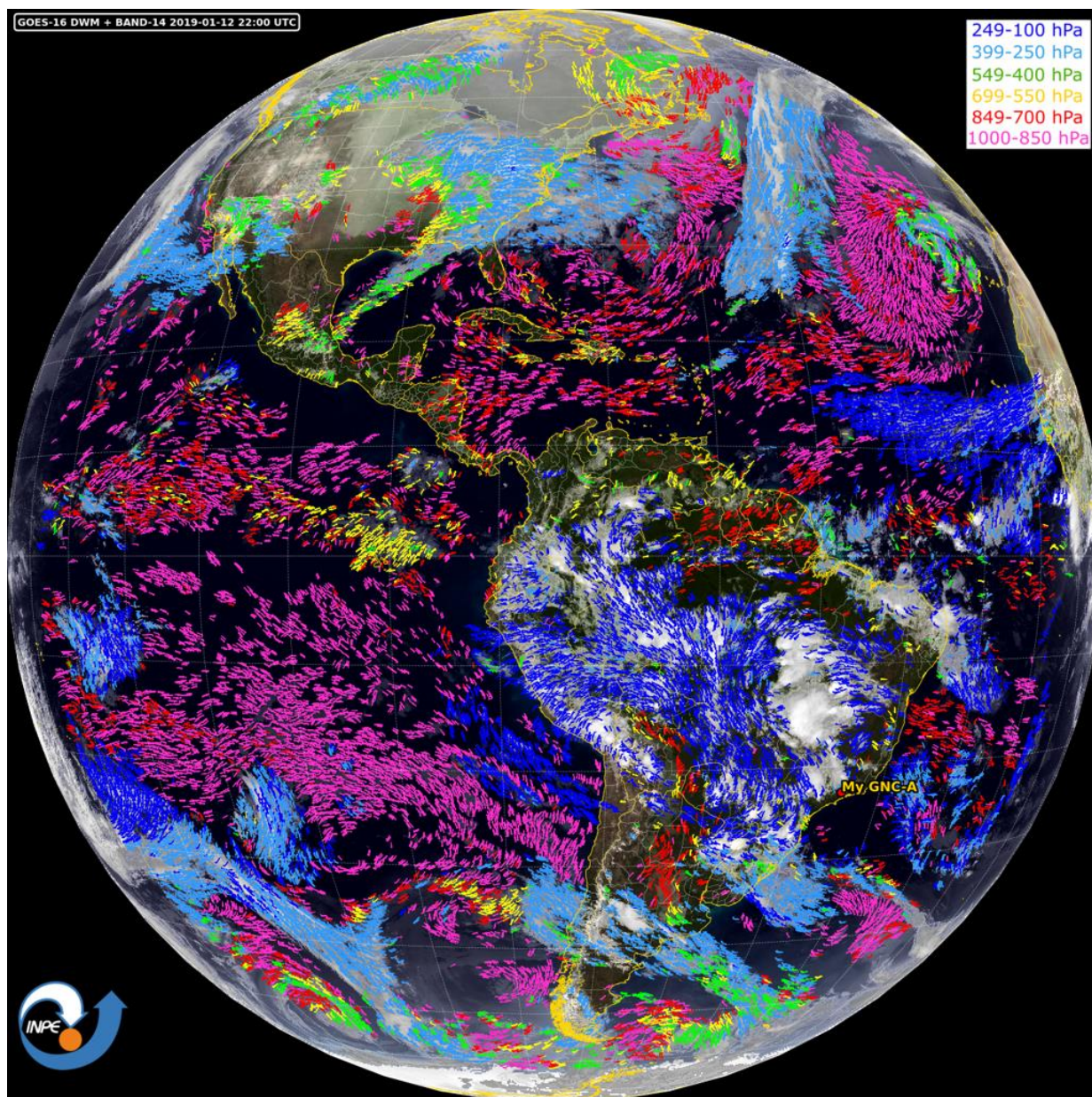


Data Provider: NOAA-NESDIS
Folder: GOES-R-Level-2-Products
Format: NetCDF4
Average Size: 28 MB
Frequency: 00, 10, 30 and 40 min (each hour)
Max n° of files a day: 96
Pixel Unit: K
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Projection: Geos
Resolution: 2 km
Naming Convention:
OR_ABI-L2-AHTF-M*_G16_s*_e*_c*.nc

 Python Script Available

Web Page:
www.goes-r.gov/products/baseline-cloud-top-temp.html/products/baseline-cloud-phase.html

- **GOES-16 - Derived Motion Winds (Bands 02, 07, 08, 09, 10 and 14)**



Data Provider: NOAA-NESDIS
Folder: GOES-R-Level-2-Products
Format: NetCDF4

Average Size:

05 ~ 100 MB (Band 02)
 60 MB (Band 07)
 80 MB (Band 08)
 80 MB (Band 09)
 95 MB (Band 10)
 55 MB (Band 14)
 80 MB (DMWVF Band 08)

Frequency: Hourly

Max n° of files a day: 24, per band

Satellite: GOES-16

Naming Convention:

OR_ABI-L2-DMWF-M3C02_G16_s*_e*_c*.nc
 OR_ABI-L2-DMWF-M3C07_G16_s*_e*_c*.nc
 OR_ABI-L2-DMWF-M3C08_G16_s*_e*_c*.nc
 OR_ABI-L2-DMWF-M3C09_G16_s*_e*_c*.nc
 OR_ABI-L2-DMWF-M3C10_G16_s*_e*_c*.nc
 OR_ABI-L2-DMWF-M3C14_G16_s*_e*_c*.nc
 (Winds Derived from ABI Bands 02, 07, 08, 09, 10 and 14)
 OR_ABI-L2-DMWVF-M3C08_G16_s*_e*_c*.nc
 (Clear Sky Winds Derived from ABI Band 08)

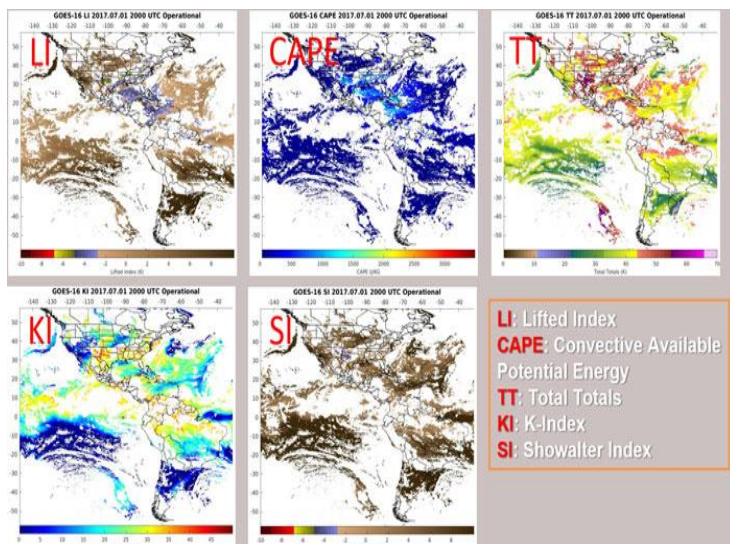


Python Script Available

Web Page:

www.goes-r.gov/products/baseline-derived-motion-winds.html

• Derived Stability Indices

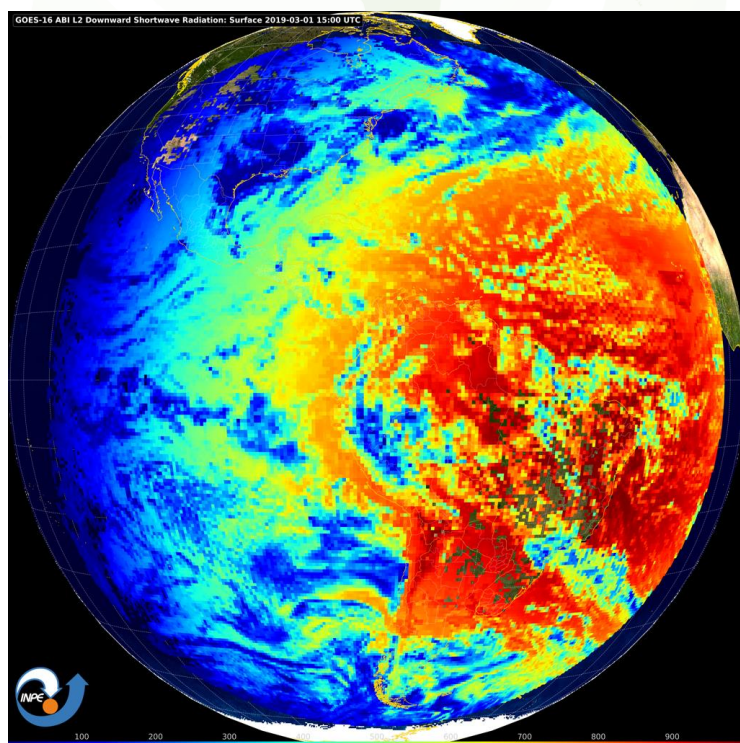


Data Provider: NOAA-NESDIS
Folder: GOES-R-Level-2-Products
Format: NetCDF4
Average Size: 4.2 MB
Frequency: 00, 10, 30 and 40 min (each hour)
Max n° of files a day: 96
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-DSIF-M*_G16_s*_e*_c*.nc

 Python Script Available

Web Page:
www.goes-r.gov/products/baseline-derived-stability-indices.html

• Downward Shortwave Radiation (Surface)

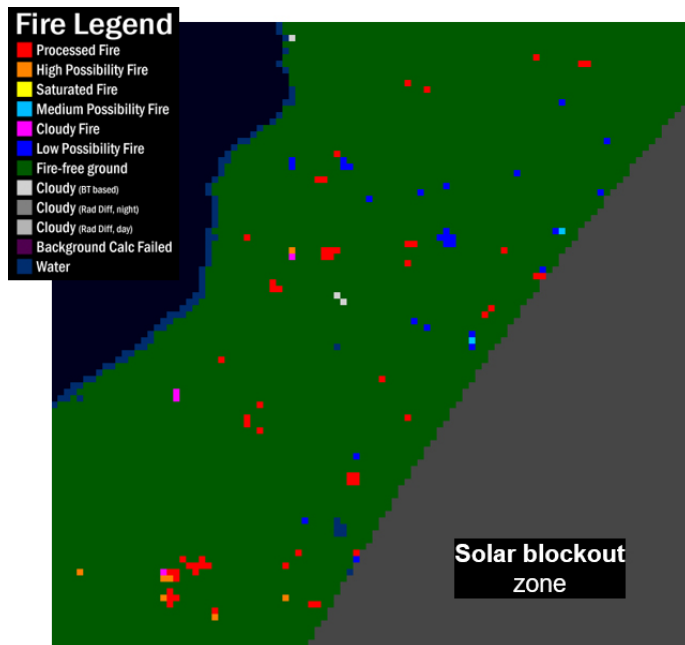


Data Provider: NOAA-NESDIS
Folder: GOES-R-Level-2-Products
Format: NetCDF4
Average Size: 126 KB
Frequency: Hourly
Max n° of files a day: 24
Pixel Unit: Wm²
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Projection: Geos
Resolution: 25 km
Naming Convention:
 OR_ABI-L2-DSRF-M*_G16_s*_e*_c*.nc

 Python Script Available

Web Page:
www.goes-r.gov/products/baseline-DSR.html

• Fire / Hot Spot Characterization

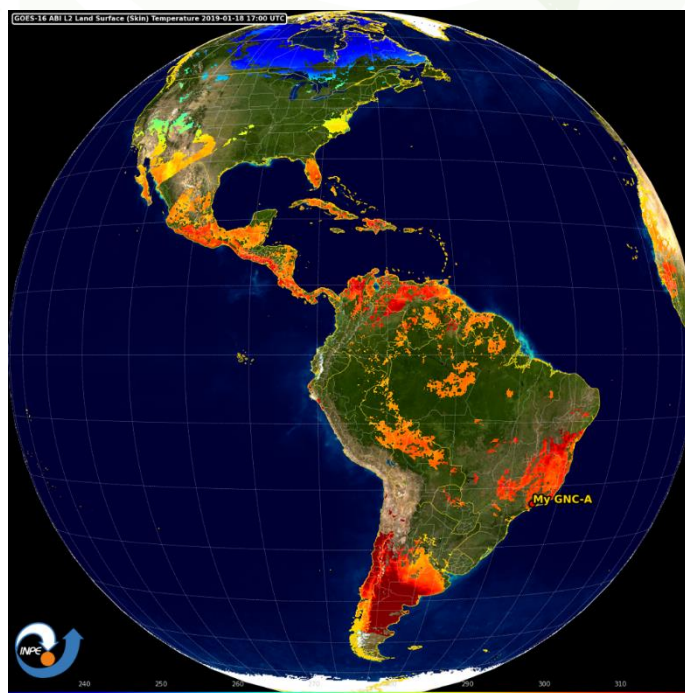


Data Provider: NOAA-NESDIS
Folder: GOES-R-Level-2-Products
Format: NetCDF4
Average Size: 3 MB
Frequency: 6x an hour
Max n° of files a day: 144
Pixel Info: 13 (High probability fire pixel), 14 (Medium probability fire pixel) and 15 (Low probability fire pixel), and other (please see pages 39 and 40 of the product ATBD)
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-FDCF-M*_G16_s*_e*_c*.nc

 Python Script Available

Web Page:
www.goes-r.gov/products/baseline-fire-hot-spot.html

• Land Surface Temperature (Skin)



Data Provider: NOAA-NESDIS
Folder: GOES-R-Level-2-Products
Format: NetCDF4
Average Size: 10 MB
Frequency: Hourly
Max n° of files a day: 24
Pixel Unit: K
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-LST2KMF-M*_G16_s*_e*_c*.nc

 Python Script Available

Web Page:
www.goes-r.gov/products/baseline-LST.html

- Rainfall Rate - Quantitative Precipitation Estimate**

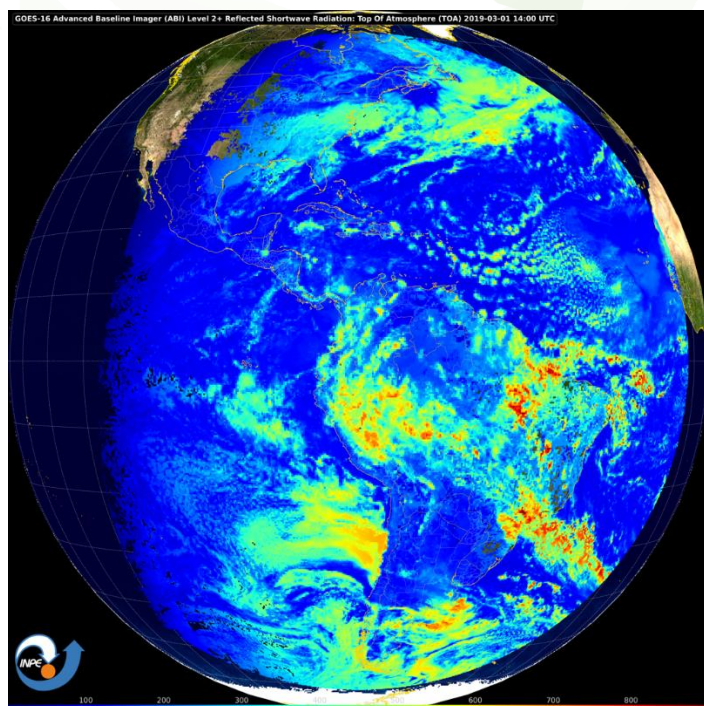


Data Provider: NOAA-NESDIS
Folder: GOES-R-Level-2-Products
Format: NetCDF4
Average Size: 1.5 MB
Frequency: 6x an hour
Max n° of files a day: 144
Pixel Unit: mm / h
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-RRQPEF-M*_G16_s*_e*_c*.nc

 Python Script Available

Web Page:
www.goes-r.gov/products/baseline-rainfall-rate-qpe.html

- Reflected Shortwave Radiation (Top of Atmosphere)**

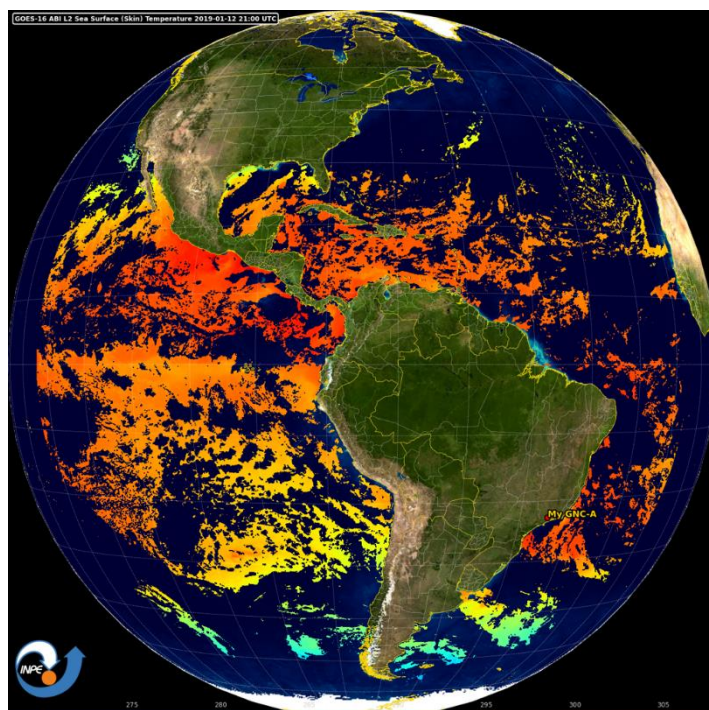


Data Provider: NOAA-NESDIS
Folder: GOES-R-Level-2-Products
Format: NetCDF4
Average Size: 294 KB
Frequency: Hourly
Max n° of files a day: 24
Pixel Unit: Wm²
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Projection: Geos
Resolution: 25 km
Naming Convention:
 OR_ABI-L2-RSRF-M*_G16_s*_e*_c*.nc

 Python Script Available

Web Page:
www.goes-r.gov/products/baseline-TOA.html

- **Sea Surface Temperature (Skin)**

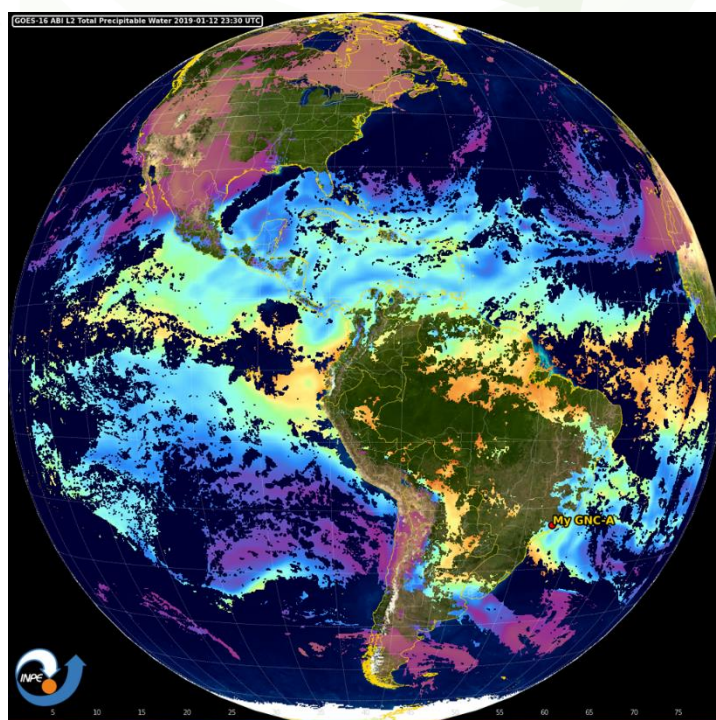


Data Provider: NOAA-NESDIS
Folder: GOES-R-Level-2-Products
Format: NetCDF4
Average Size: 30 MB
Frequency: Hourly
Max n° of files a day: 24
Pixel Unit: K
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-SSTF-M*_G16_s*_e*_c*.nc

 Python Script Available

Web Page:
www.goes-r.gov/products/baseline-SST.html

- **Total Precipitable Water**

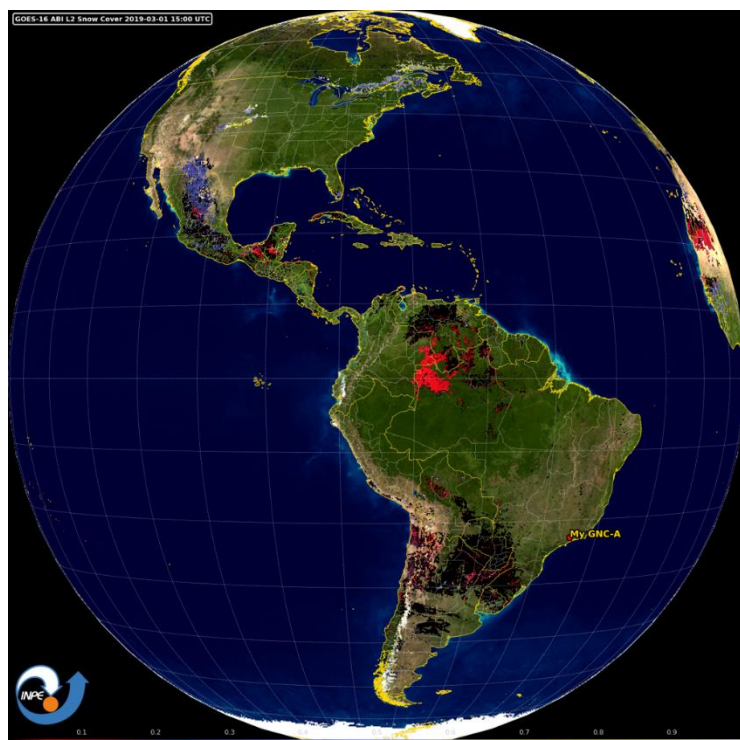


Data Provider: NOAA-NESDIS
Folder: GOES-R-Level-2-Products
Format: NetCDF4
Average Size: 1.5 MB
Frequency: 6x an hour
Max n° of files a day: 144
Pixel Unit: mm
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Projection: Geos
Resolution: 10km
Naming Convention:
 OR_ABI-L2-TPWF-M*_G16_s*_e*_c*.nc

 Python Script Available

Web Page:
www.goes-r.gov/products/baseline-total-precipitable-water.html

- **Snow Cover**



Data Provider: NOAA-NESDIS
Folder: GOES-R-Level-2-Products
Format: NetCDF4
Average Size: 3 MB
Frequency: 00, 10, 30 and 40 min (each hour)
Max n° of files a day: 24
Pixel Unit: m
Satellite: GOES-16
Instrument: ABI (Advanced Baseline Imager)
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-FSCF-M*_G16_s*_e*_c*.nc

 Python Script Available

Web Page:
www.goes-r.gov/products/baseline-volcanic-ash.html

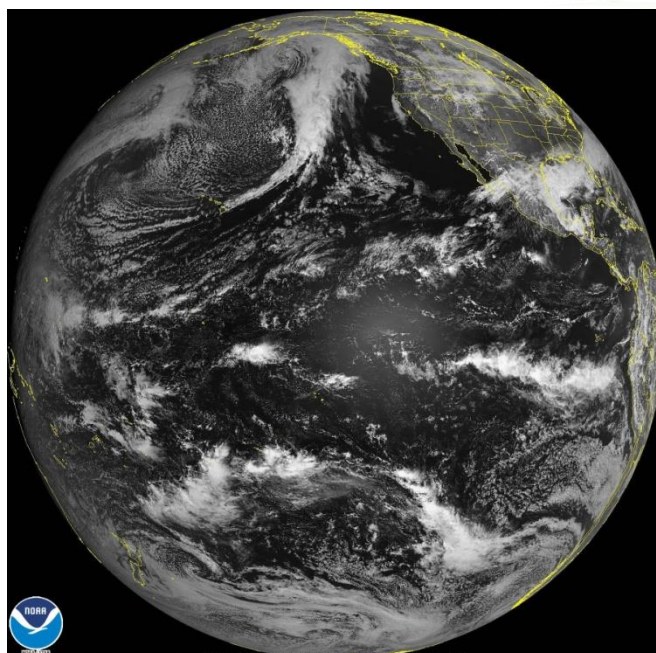
Note - On the file naming convention for all Level 2 files:

OR: Operational System Real-Time Data
ABI-L2: Advanced Baseline Imager Level 2+
CMIPF: Cloud and Moisture Image Product - Full Disk
M3 / M4 / M6: ABI Mode 3 / ABI Mode 4 / ABI Mode 6
C02: Channel number (Band 2 in this example)
G16: GOES-16
sYYYYJJHHMMSSs: Observation Start
eYYYYJJHHMMSSs: Observation End
cYYYYJJHHMMSSs: File Creation

2 GOES-18

2.1 ABI (Advanced Baseline Imager)

- **Band 02: 0.64 μm ("Red")**



Data Provider: NOAA-NESDIS
Folder: GOES-T-CMI-Imagery
Format: NetCDF4
Average Size: 76 MB
Frequency: Hourly
Max n° of files a day: 24
Pixel info: Reflectance Factor
Satellite: GOES-18
Instrument: ABI (Advanced Baseline Imager)
Channel: 02
Band Nickname: "Red"
Wavelength: 0.59 to 0.69 μm , cent. at 0.64 μm
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-CMIPF-M*C02_G18_s*_e*_c*.nc

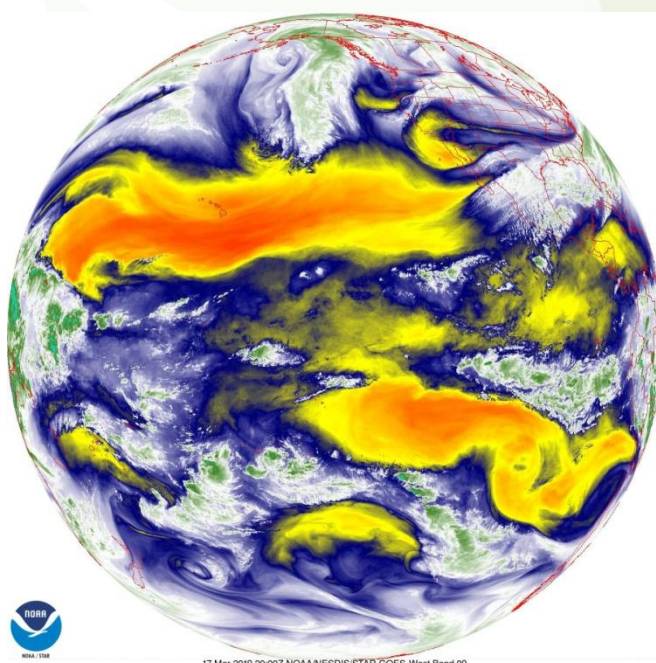


Python Script Available

Web Page:

www.goes-r.gov/products/baseline-cloud-moisture-imagery.html

- **Band 09: 6.9 μm ("Mid-Level Tropospheric Water Vapor")**



Data Provider: NOAA-NESDIS
Folder: GOES-T-CMI-Imagery
Format: NetCDF4
Average Size: 20 MB
Frequency: Hourly
Max n° of files a day: 24
Pixel info: Brightness Temperature
Satellite: GOES-18
Instrument: ABI (Advanced Baseline Imager)
Channel: 09
Band Nickname: "Mid-Level Tropospheric Water Vapor"
Wavelength: 6.75 to 7.15 μm , cent. at 6.95 μm
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-CMIPF-M*C09_G18_s*_e*_c*.nc

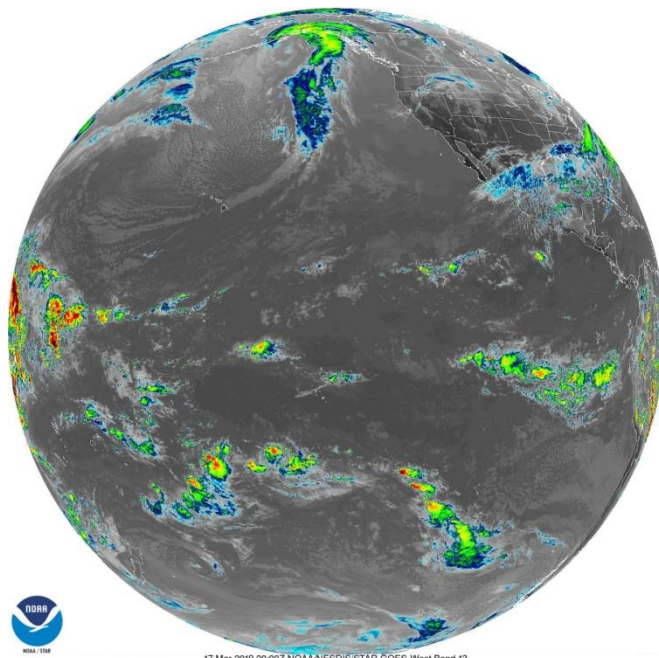


Python Script Available

Web Page:

www.goes-r.gov/products/baseline-cloud-moisture-imagery.html

- Band 13: 10.3 μm ("Clean" IR Longwave Window)**



Data Provider: NOAA-NESDIS
Folder: GOES-T-CMI-Imagery
Format: NetCDF4
Average Size: 30 MB
Frequency: Hourly
Max n° of files a day: 24
Pixel info: Brightness Temperature
Satellite: GOES-18
Instrument: ABI (Advanced Baseline Imager)
Channel: 13
Band Nickname: "'Clean' IR Longwave Window"
Wavelength: 10.10 to 10.60 μm , cent. at 10.35 μm
Projection: Geos
Resolution: 2 km
Naming Convention:
 OR_ABI-L2-CMIPF-M*C13_G18_s*_e*_c*.nc

 Python Script Available

Web Page:
www.goes-r.gov/products/baseline-cloud-moisture-imagery.html

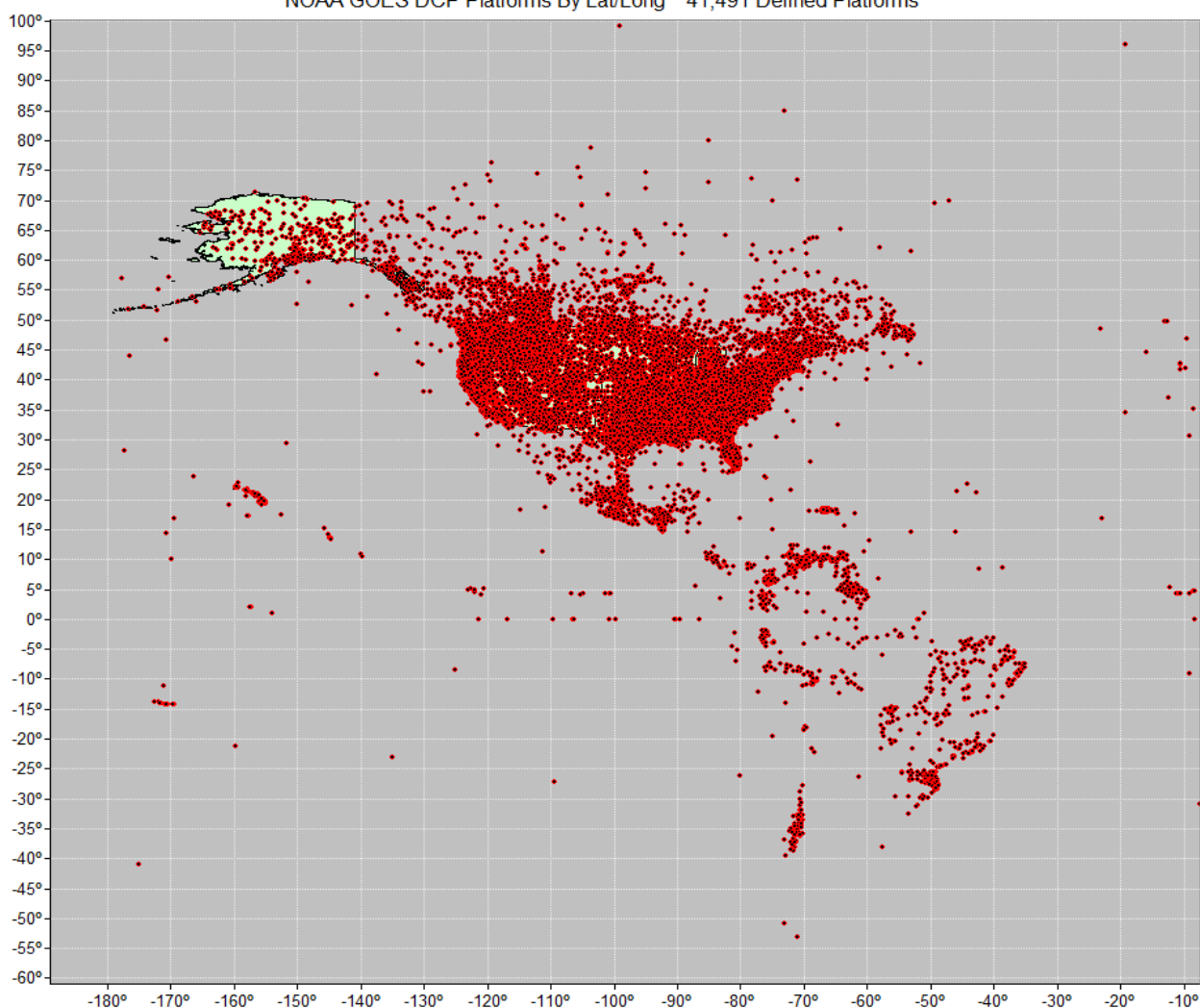
Note - On the file naming convention for all CMI files:

OR: Operational System Real-Time Data
ABI-L2: Advanced Baseline Imager Level 2+
CMIPF: Cloud and Moisture Image Product - Full Disk
M3 / M4 / M6: ABI Mode 3 / ABI Mode 4 / ABI Mode 6
C02: Channel number (Band 2 in this example)
G16: GOES-16
sYYYYJJJHHMMSSs: Observation Start
eYYYYJJJHHMMSSs: Observation End
cYYYYJJJHHMMSSs: File Creation

3 GOES DATA COLLECTION PLATFORMS (GOES DCS)

3.1 GOES DCS

Microcom Design Inc. 10/6/2016
NOAA GOES DCP Platforms By Lat/Long 41,491 Defined Platforms



Data Provider: NOAA-NESDIS

Folder: GOES-R-DCS

Format: “.dcs” file

Average Size:
~ 8 KB

Frequency: Every 5-6 seconds

Max n° of files a day: 19,500 files per day

Total Daily Size: 156 MB

Naming Convention:

pH-YYDDHHMMSS-A/B

Where, YY is year, DDD is julian day, HHMMSS is hours, minutes seconds and A/B is server

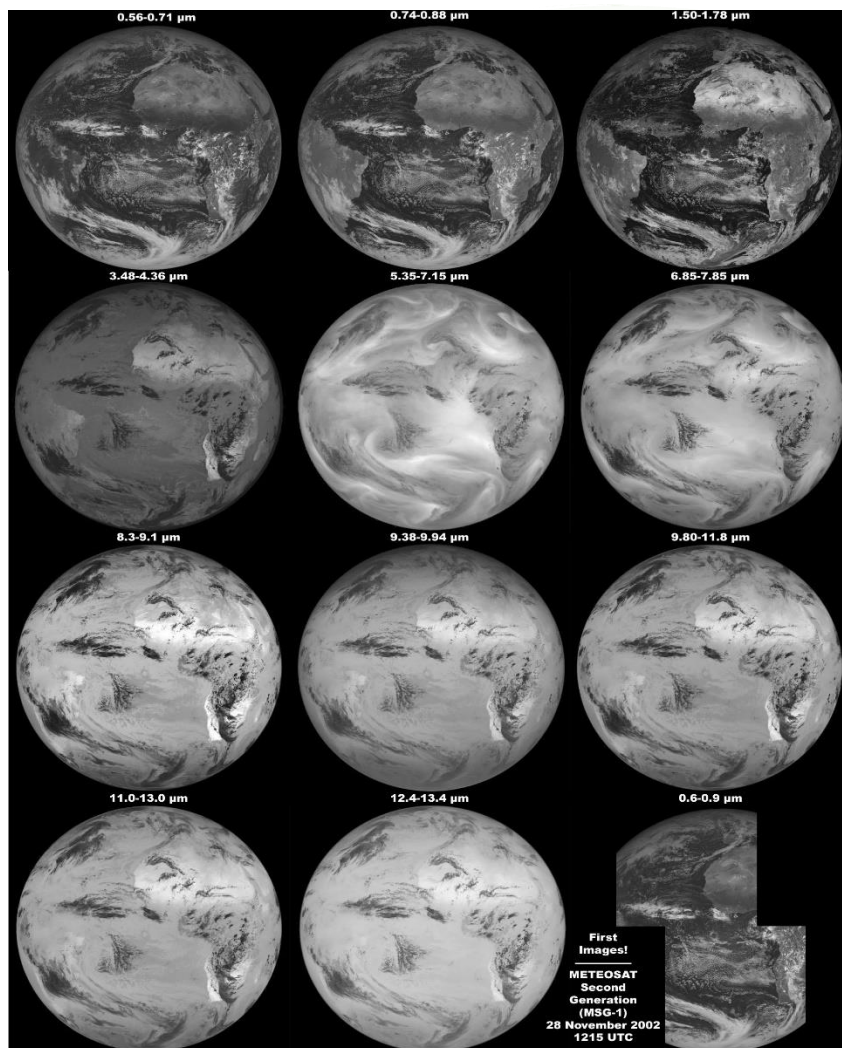
Web Page:

https://noaasis.noaa.gov/GOES/GOES_DCS/goes_dcs.html

4 METEOSAT

4.1 SEVIRI (Spinning Enhanced Visible Infra-Red Imager)

- Level 1.5 Image Data - MSG - 0 degree



Data Provider: EUMETSAT
Folder: MSG-0degree/IMG-3h
Format: HRIT
Average Size: 90 MB
Frequency:
 12 bands: 3 hours
 Bands VIS0.6, WV6.2
 and IR10.8: Hourly
Max n° of files a day: 114 x 8
Satellite: METEOSAT
Instrument: SEVIRI

Channels / Resolutions:

VIS0.6: 3,0 km
 VIS0.8: 3,0 km
 IR1.6: 3,0 km
 IR3.9: 3,0 km
 WV6.2: 3,0 km
 WV7.3: 3,0 km
 IR 8.7: 3,0 km
 IR9.7: 3,0 km
 IR10.8: 3,0 km
 IR 12.0: 3,0 km
 IR13.4: 3,0 km
 HRV: 1,0 km

 Python Script Available

Web Page:

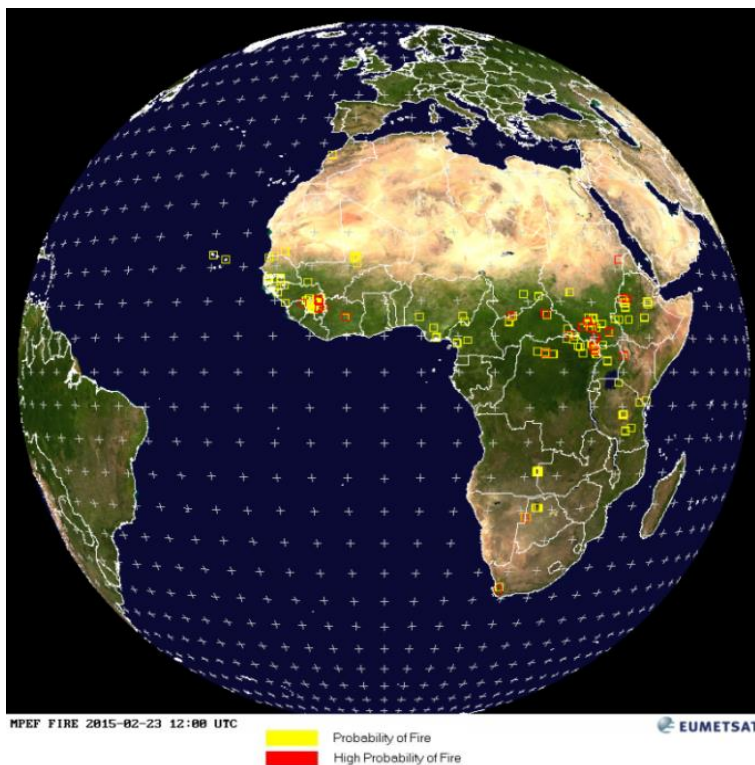
oiswww.eumetsat.org/IPPS/html/MSG/IMAGERY

Naming Convention:

H-000-MSG3	-MSG3	-IR_120	000001	-YYYYMMDDHHMN--C_
H-000-MSG3	-MSG3	-VIS006	000001	-YYYYMMDDHHMN--C_
H-000-MSG3	-MSG3	-IR_039	000001	-YYYYMMDDHHMN--C_
H-000-MSG3	-MSG3	-VIS008	000001	-YYYYMMDDHHMN--C_
H-000-MSG3	-MSG3	-IR_087	000001	-YYYYMMDDHHMN--C_
H-000-MSG3	-MSG3	-IR_097	000001	-YYYYMMDDHHMN--C_
H-000-MSG3	-MSG3	-WV_062	000001	-YYYYMMDDHHMN--C_
H-000-MSG3	-MSG3	-WV_073	000001	-YYYYMMDDHHMN--C_
H-000-MSG3	-MSG3	-HRV	000001	-YYYYMMDDHHMN--C_
H-000-MSG3	-MSG3	-IR_134	000001	-YYYYMMDDHHMN--C_
H-000-MSG3	-MSG3	-IR_108	000001	-YYYYMMDDHHMN--C_
H-000-MSG3	-MSG3	-IR_016	000001	-YYYYMMDDHHMN--C_
H-000-MSG3	-MSG3	-	-PRO	-YYYYMMDDHHMN--
H-000-MSG3	-MSG3	-	-EPI	-YYYYMMDDHHMN--

4.2 Meteorological Products Extraction Facility (MPEF)

- **Active Fire Monitoring**

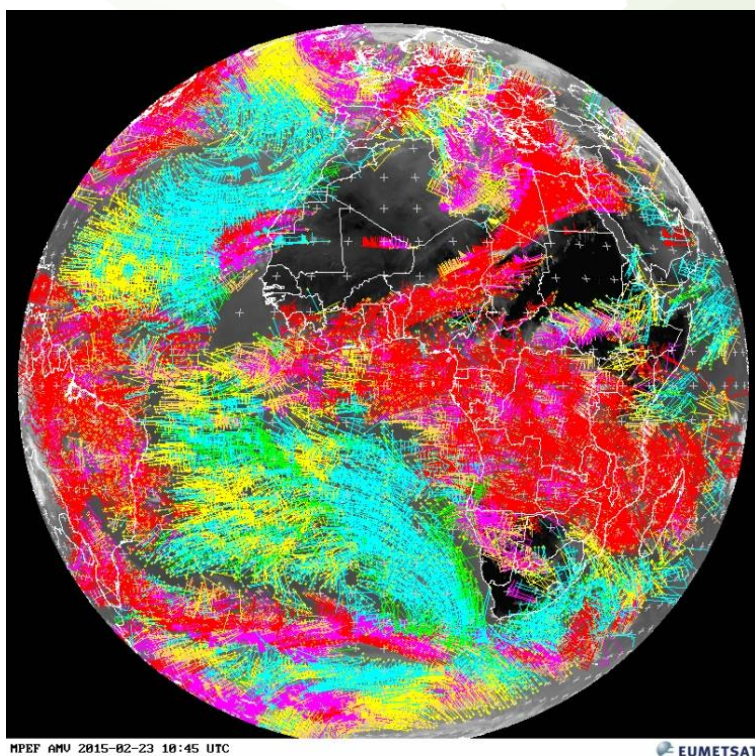


Data Provider: EUMETSAT
Folder: MSG-0degree/MetProducts
Formats: CAP (Common Alert Protocol) and GRIB2
Files per day: 192 per format
Volume per day: 2 MB (CAP) and 1.5 MB (GRIB2)
Frequency: 15 minutes
Satellite: METEOSAT
Instrument: SEVIRI
Naming Convention:
 L-000-MSG?_MPEF_____-FIRC[_]*

 Python Script Available

Web Page:
oiswww.eumetsat.org/IPPS/html/MSG/PRODUCTS/FIR/index.htm

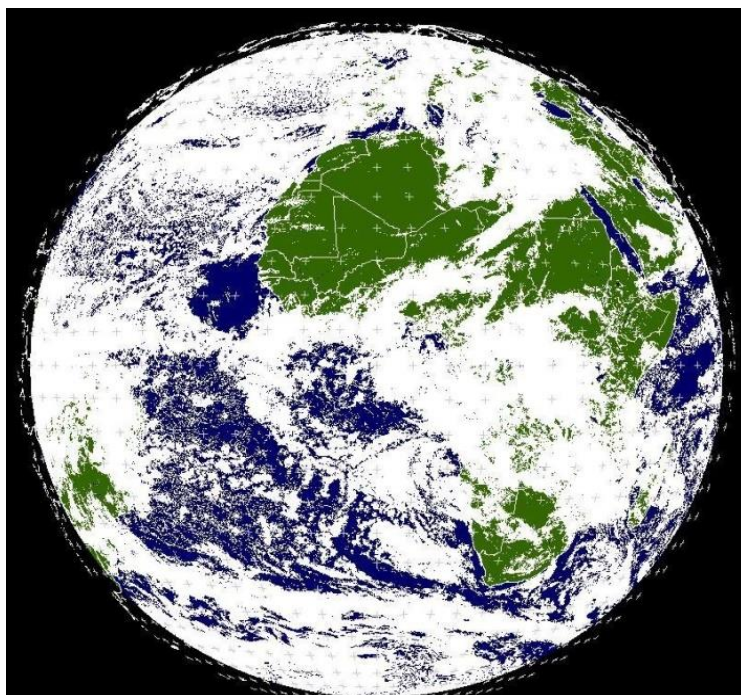
- **Atmospheric Motion Vectors**



Data Provider: EUMETSAT
Folder: MSG-0degree/MetProducts
Format: BUFR
Files per day: 48
Volume per day: 52 MB
Frequency: 60 minutes
Satellite: METEOSAT
Instrument: SEVIRI
Naming Convention:
 L-000-MSG?_MPEF_____-AMV[_]*

Web Page:
oiswww.eumetsat.org/IPPS/html/MSG/PRODUCTS/AMV/index.htm

- **Cloud Mask**



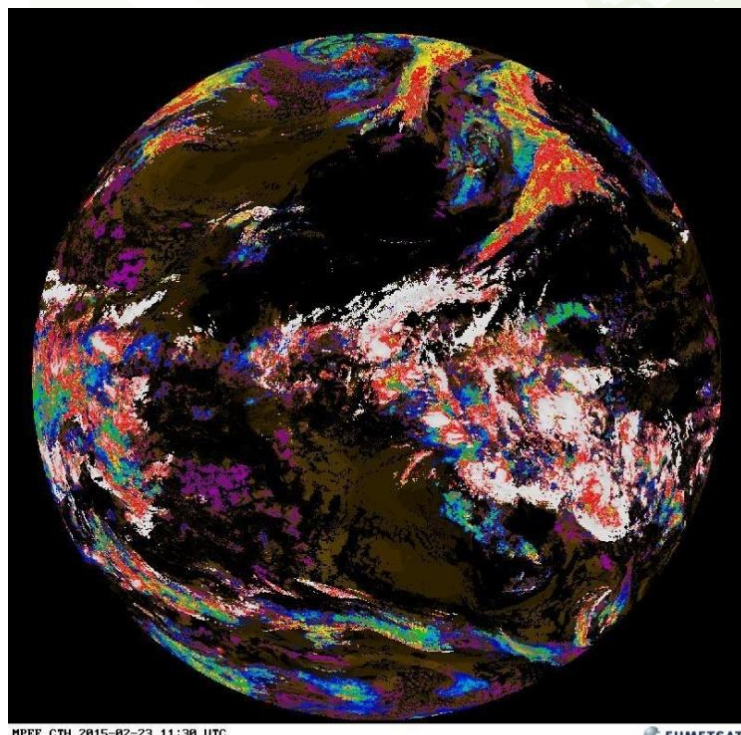
☐ Cloud
 ☐ Land
 ☐ Water

Data Provider: EUMETSAT
Folder: MSG-0degree/MetProducts
Format: GRIB2
Files per day: 672
Volume per day: 325 MB
Frequency: 15 minutes
Satellite: METEOSAT
Instrument: SEVIRI
Naming Convention:
 L-000-MSG?__-MPEF_____-CLM[]*

 Python Script Available

Web Page:
oiswww.eumetsat.org/IPPS/html/MSG/PRODUCTS/CLM/index.htm

- **Cloud Top Height**



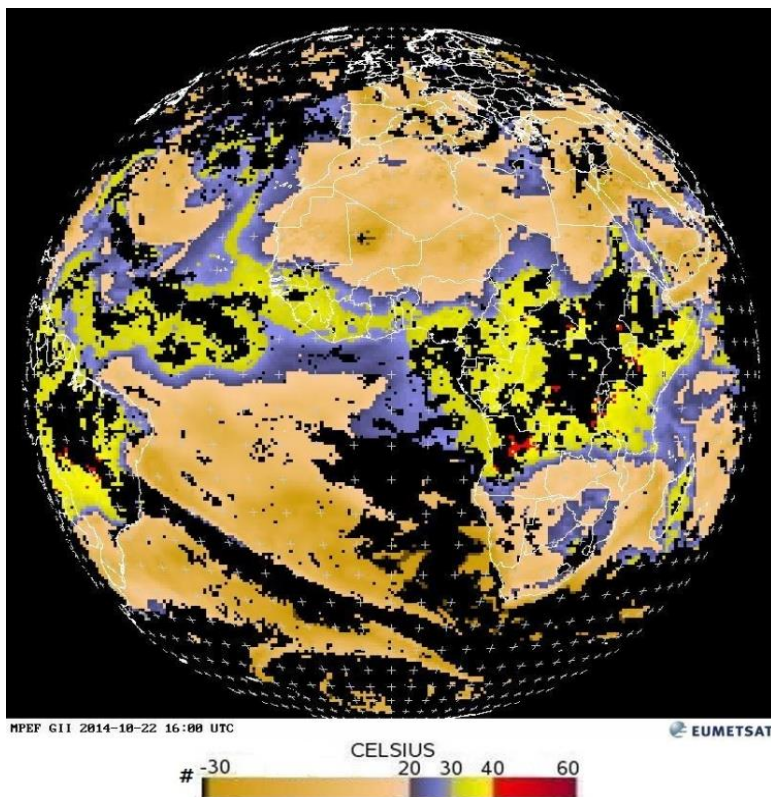
0.0 METER 20000.0

Data Provider: EUMETSAT
Folder: MSG-0degree/MetProducts
Format: GRIB2
Files per day: 288
Volume per day: 80 MB
Frequency: 15 minutes
Satellite: METEOSAT
Instrument: SEVIRI
Naming Convention:
 L-000-MSG?__-MPEF_____-CTH[]*

 Python Script Available

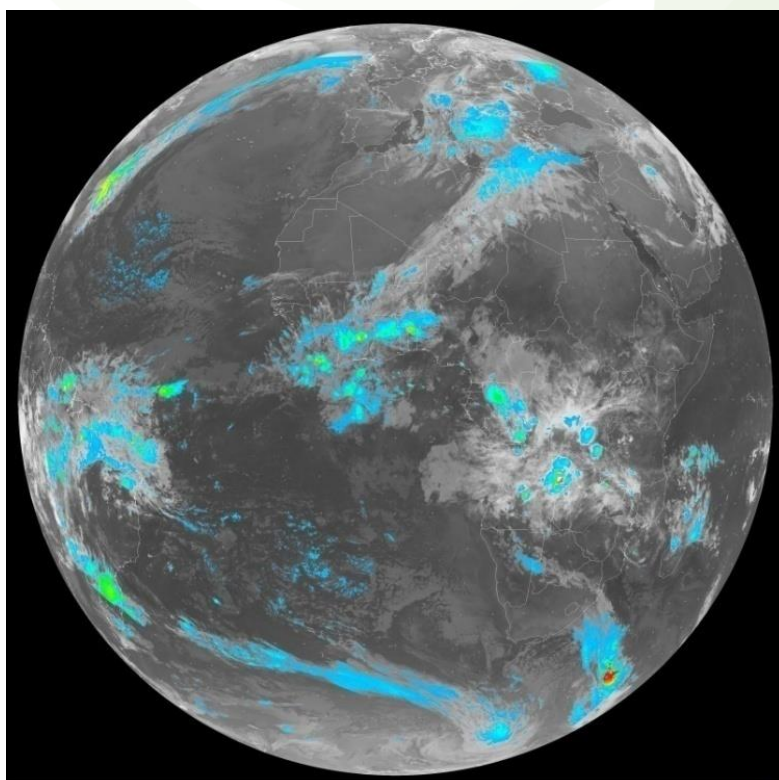
Web Page:
oiswww.eumetsat.org/IPPS/html/MSG/PRODUCTS/CTH/index.htm

- Global Instability Index



Data Provider: EUMETSAT
Folder: MSG-0degree/MetProducts
Format: BUFR
Files per day: 192
Volume per day: 840 MB
Frequency: 15 minutes
Satellite: METEOSAT
Instrument: SEVIRI
Naming Convention:
 L-000-MSG?__-MPEF_____-GII[]*

- Accumulated Precipitation at Ground by Blended MW and IR - P-IN-SEVIRI (PR-OBS-3B)

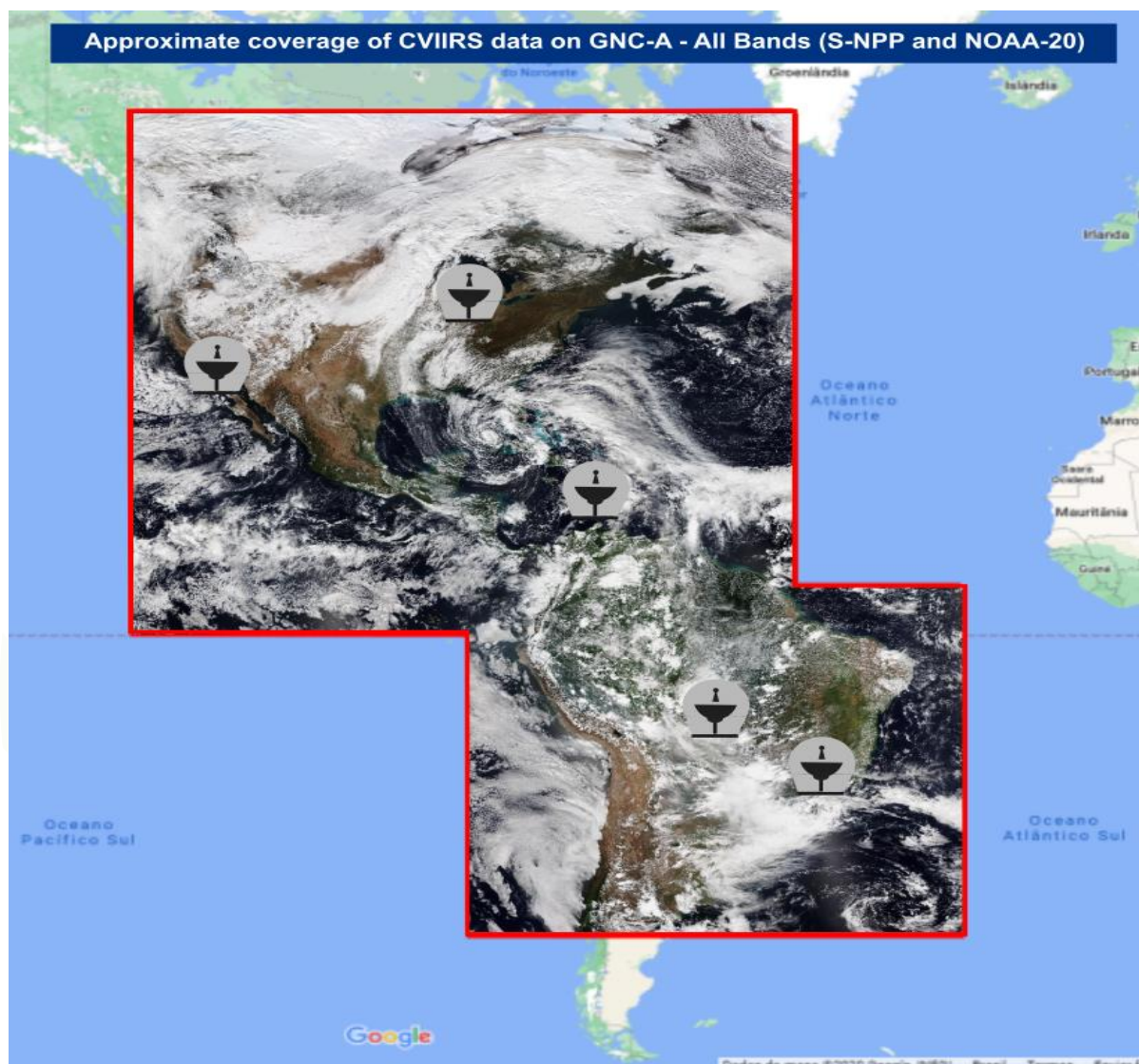


Data Provider: EUMETSAT
Folder: MSG-0degree/MetProducts
Format: GRIB2
Files per day: 96
Volume per day: 240 MB
Frequency: 15 minutes
Satellite: METEOSAT
Instrument: SEVIRI
Naming Convention:
 S-HSAF-h03B_YYYYMMDD_HHMN_fdk.grb.gz

Web Page:
<http://hsaf.meteoam.it/description-h05b.php>

5 JPSS / Low Earth Orbit

5.1 VIIRS (Visible Infrared Imaging Radiometer Suite)



Data Provider: CIMSS

Folders:

CIMSS/CVIIRS/IBAND: I1, I2, I5

CIMSS/CVIIRS/MBAND: M, M3, M4, M5, M7, M9, M10, M12, M14, M15

CIMSS/CVIIRS/DNB: Day Night Band (Nighttime only)

Format: CVIIRS (Compressed VIIRS)

Coverage:

The data is retrieved from the following DB stations: Cuiaba BR, Cachoeira Paulista BR, Monterey CA, Madison WI and Mayaguez PR

Satellites:

NOAA-20 and S-NPP

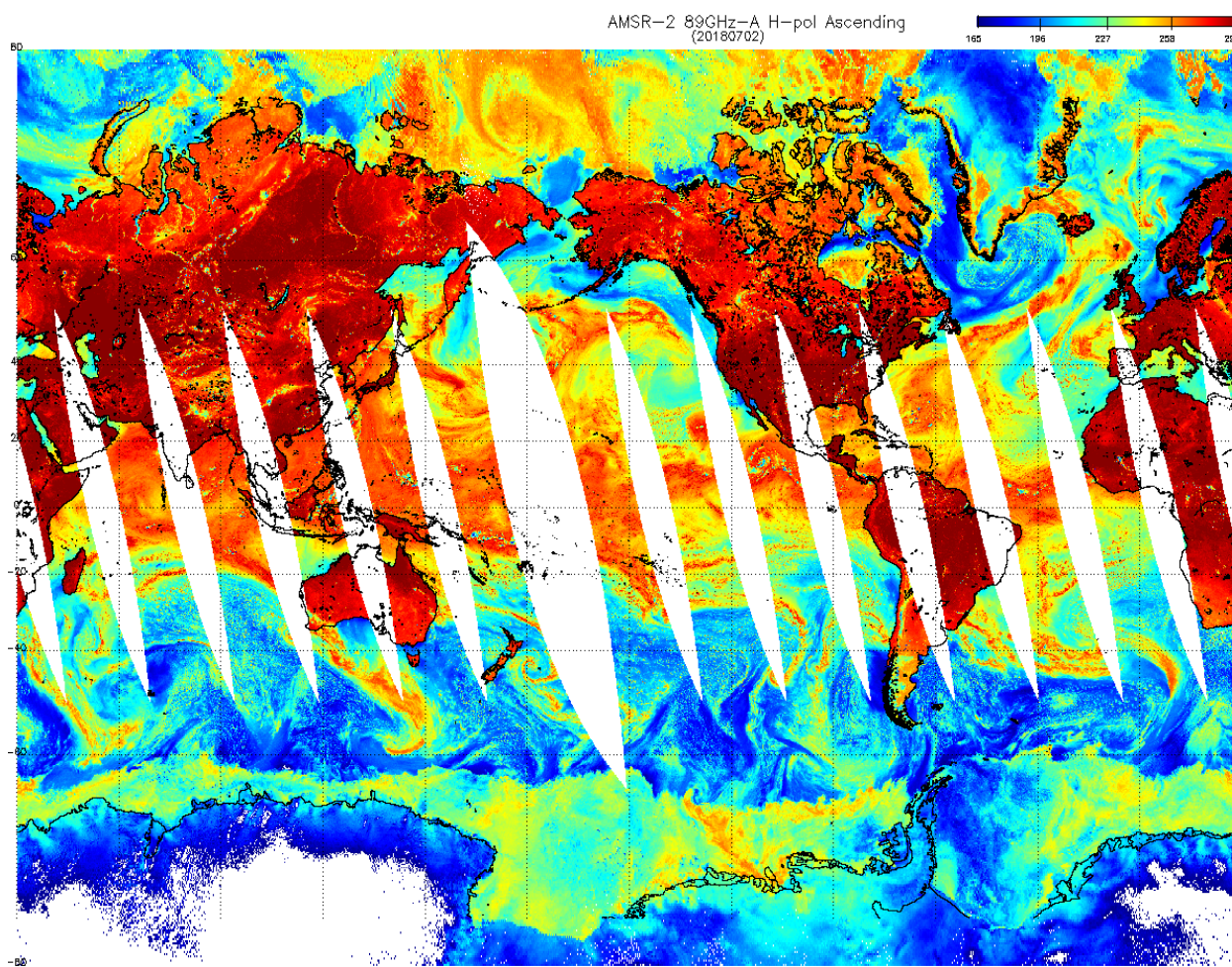
Data Processing Example:

Decompression:

- Download EUMETSAT CVIIRS 2 software from <https://www.eumetsat.int/website/home/Data/DataDelivery/Software/>
- Decompress/expand the CVIIRS files, e.g.,
`chmod ugo+x $HOME/CVIIRS_2_LIN64/cviirs-2.0.2-linux64/cviirs.sh`
`export PATH=$HOME/CVIIRS_2_LIN64/cviirs-2.0.2-linux64:$PATH`
`cviirs.sh -x -M -i $PWD -o $PWD # M-bands`
`cviirs.sh -x -I -i $PWD -o $PWD # I-bands`
`cviirs.sh -x -N -i $PWD -o $PWD # DNB`

5.2 GCOM-W1 AMSR2 (Advanced Microwave Scanning Radiometer 2)

- **Imagery (Brightness Temperatures @ 6.9 GHz, 7.3 GHz, 10.7 GHz, 18.7 GHz, 23.8 GHz, 36.5 GHz, 89 GHz - Vertical and Horizontal Polarizations)**



Data Provider: NOAA-NESDIS

Folder: JPSS/PRODUCTS/G-IMAGERY

Format: NetCDF4

Average Size: 270 MB

Frequency: 10 to 12 orbits a day

Max n° of files a day: 12

Satellite: GCOM-W1

Instrument: AMSR-2 (Advanced Microwave Scanning Radiometer 2)

Projection: Geos

Resolution: 6.9 GHz (35 x 62 km), 10.7 GHz (24 x 42 km), 18.7 GHz (14 x 22 km), 23.8 GHz (15 x 26 km), 36.5 GHz (7 x 12 km), 89 GHz (3 x 5 km)

Naming Convention:

AMSR2-MBT_v2r0_GW1_s*_e*_c*.nc

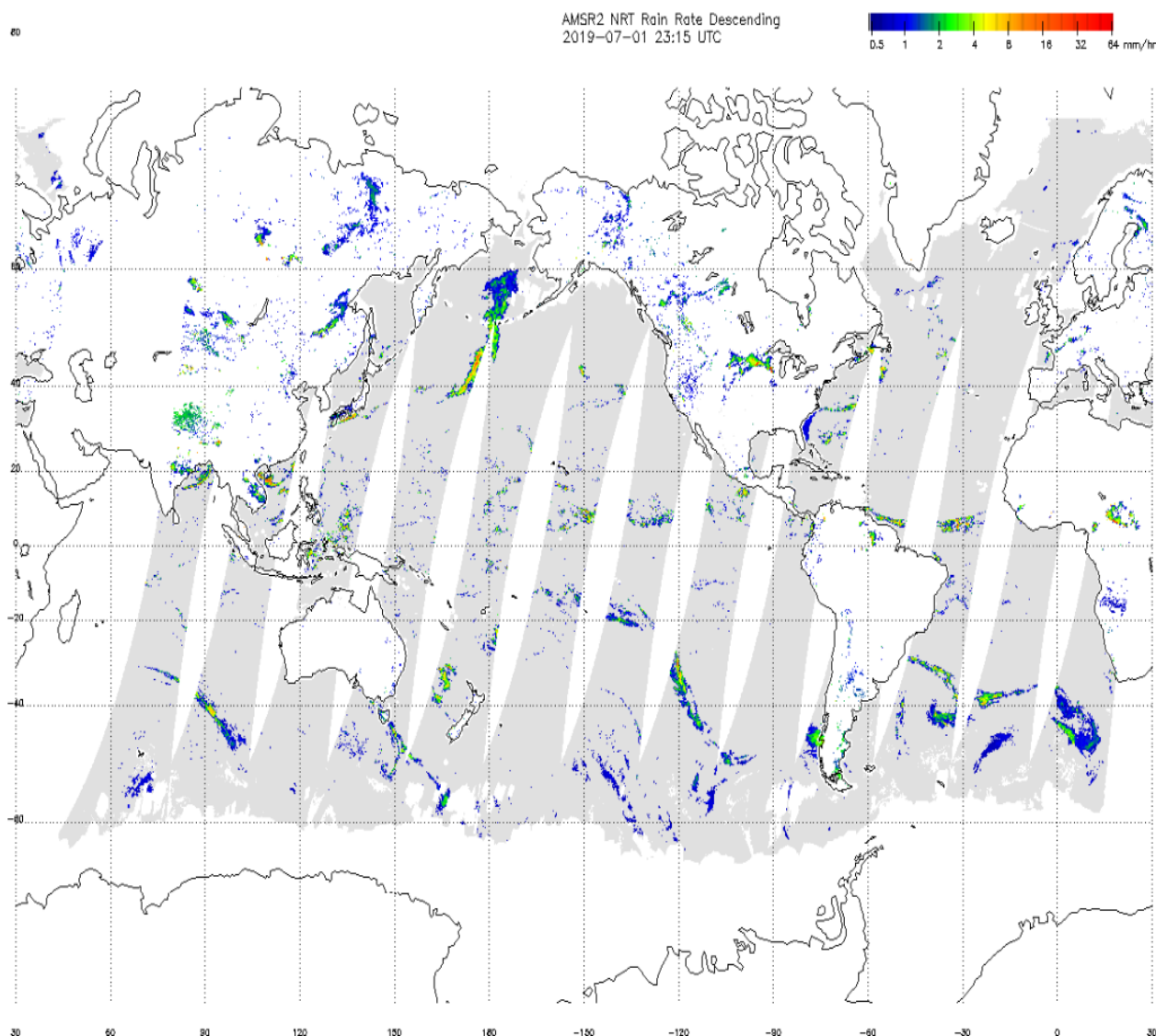


Python Script Available

Web Page:

www.ospo.noaa.gov/Products/atmosphere/gpds/maps.html

- Precipitation (Rain Rate, Convective Precipitation, Probability of Precipitation)**

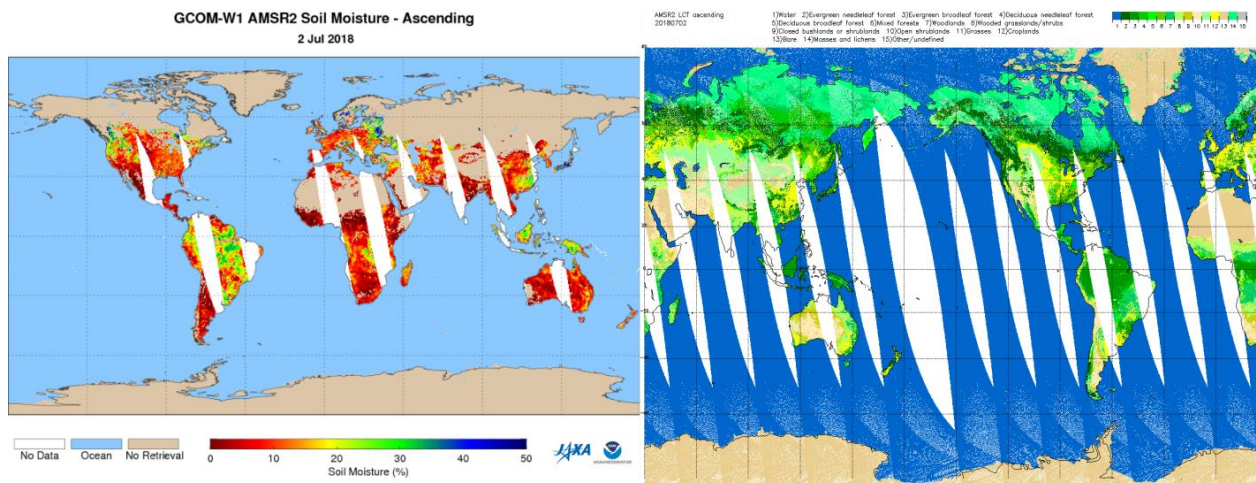


Data Provider: NOAA-NESDIS
Folder: JPSS/PRODUCTS/G-PRECIPITATION
Format: NetCDF4
Average Size: 60 MB
Frequency: 10 to 12 orbits a day
Max n° of files a day: 12
Satellite: GCOM-W1
Instrument: AMSR2
 (Advanced Microwave Scanning Radiometer 2)
Projection: Geos
Naming Convention:
 AMSR2-PRECIP_v2r0_GW1_s*_e*_c*.nc

 Python Script Available

Web Page:
www.ospo.noaa.gov/Products/atmosphere/gpds/maps.html

• Soil Moisture (Soil Moisture and Land Cover Type)



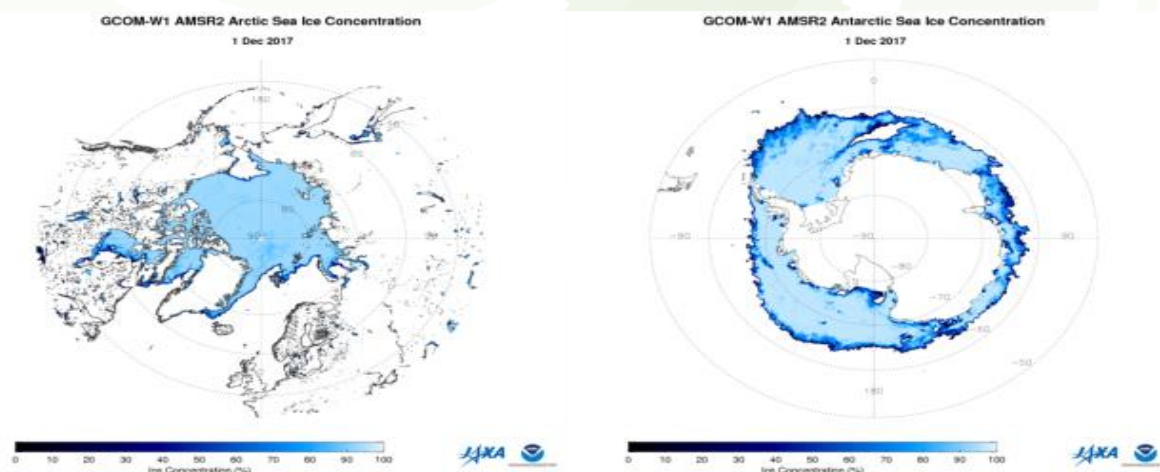
Data Provider: NOAA-NESDIS
Folder: JPSS/PRODUCTS/G-SOILMOISTURE
Format: NetCDF4
Average Size: 30 MB
Frequency: 10 to 12 orbits a day
Max n° of files a day: 12
Satellite: GCOM-W1
Instrument: AMSR2
 (Advanced Microwave Scanning Radiometer 2)

Projection: Geos
Naming Convention:
 AMSR2-SOIL_v2r0_GW1_s*_e*_c*.nc

 Python Script Available

Web Page:
www.ospo.noaa.gov/Products/atmosphere/gpds/maps.html

• Sea Ice (Sea Ice Concentration)



Data Provider: NOAA-NESDIS
Folder: JPSS/PRODUCTS/G-SEAICE
Format: NetCDF4
Average Size: 62 MB (NS) / 40 MB (SH)
Frequency: 2 files a day
Satellite: GCOM-W1
Instrument: AMSR2
 (Advanced Microwave Scanning Radiometer 2)

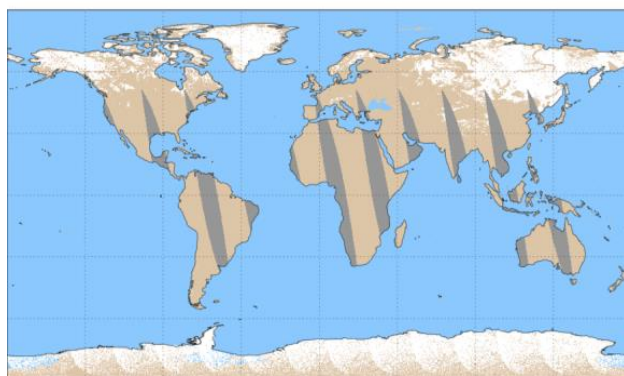
Projection: Geos
Naming Convention:
 AMSR2-SEAICE_v2r0_GW1_s*_e*_c*.nc

 Python Script Available

Web Page:
www.ospo.noaa.gov/Products/atmosphere/gpds/maps.html

- **Snow (Snow Cover, Snow Depth, Snow Water Equivalent)**

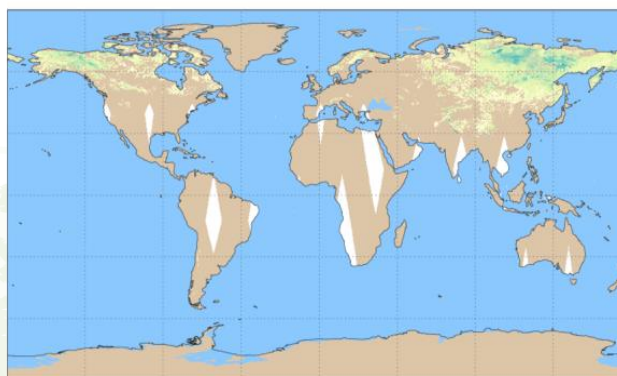
GCOM-W1 AMSR2 Snow Cover - Ascending
1 Dec 2017



No Data Ocean Land Snow



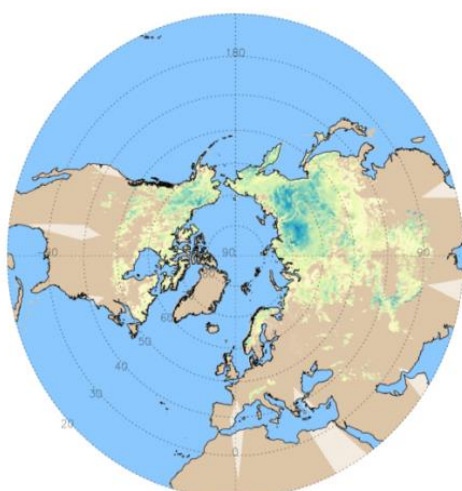
GCOM-W1 AMSR2 Snow Water Equivalent
1 Dec 2017



No Data Ocean Land 0 5 10 15 20 25
Snow Water Equivalent (cm)



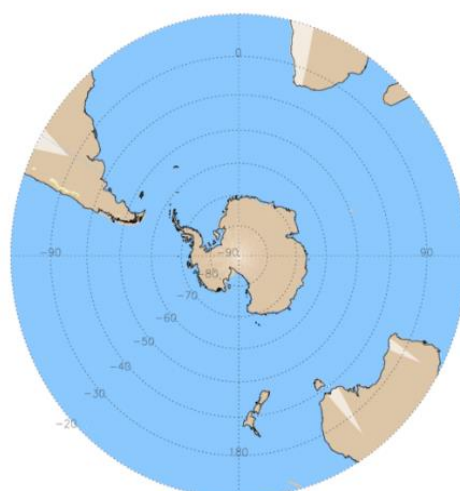
GCOM W1 AMSR2 Snow Depth Northern Hemisphere
1 Dec 2017



No Data Ocean Land 0 20 40 60 80 100
Snow Depth (cm)



GCOM W1 AMSR2 Snow Depth Southern Hemisphere
1 Dec 2017



No Data Ocean Land 0 20 40 60 80 100
Snow Depth (cm)



Data Provider: NOAA-NESDIS

Folder: JPSS/PRODUCTS/G-SNOW

Format: NetCDF4

Average Size: 36 MB

Frequency: 10 to 12 orbits a day

Max n° of files a day: 12

Satellite: GCOM-W1

Instrument: AMSR2 (Advanced Microwave Scanning Radiometer 2)

Projection: Geos

Naming Convention:

AMSR2-SNOW_v2r0_GW1_s*_e*_c*.nc

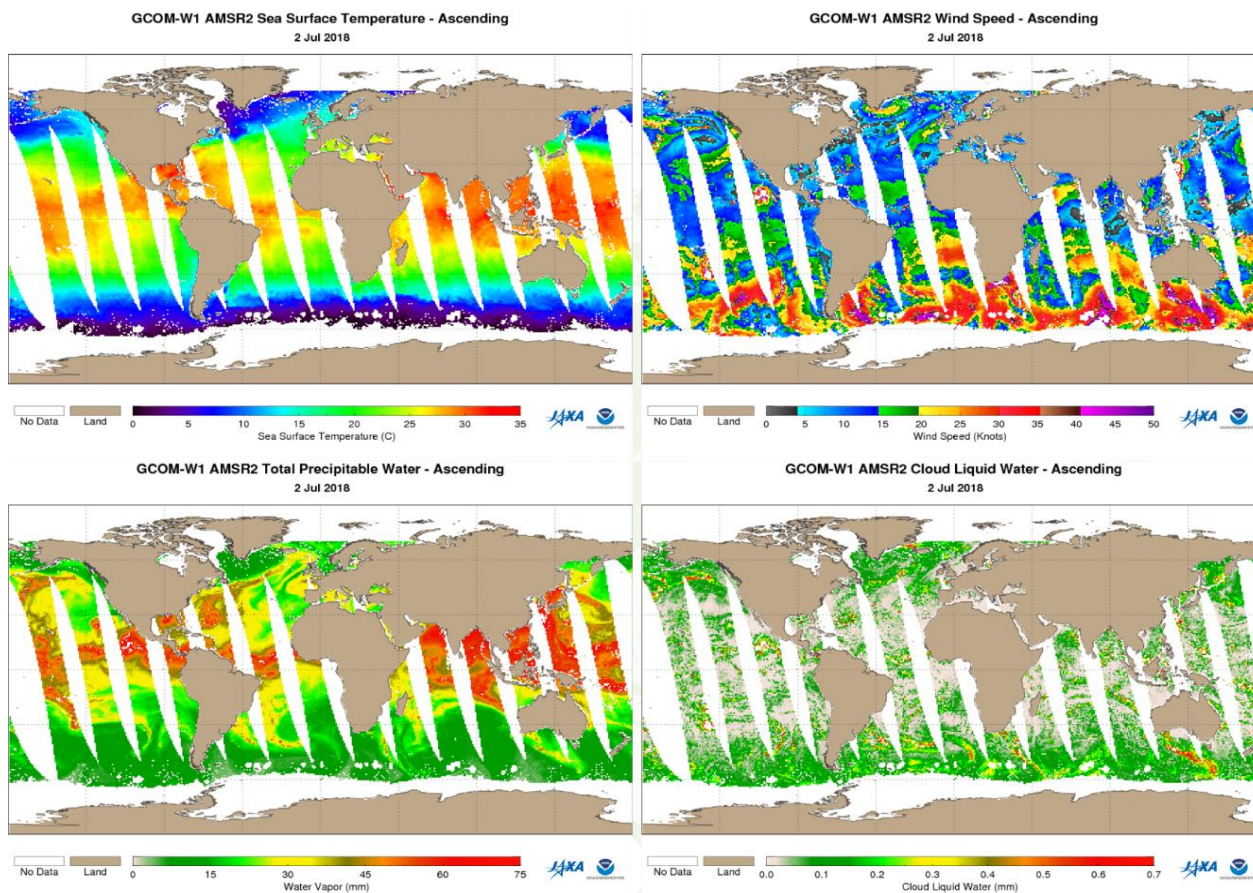


Python Script Available

Web Page:

www.ospo.noaa.gov/Products/atmosphere/gpds/maps.html

- **Ocean (Sea Surface Temperature, Sea Surface Wind Speed, Total Precipitable Water, Cloud Liquid Water)**



Data Provider: NOAA-NESDIS

Folder: JPSS/PRODUCTS/G-OCEAN

Format: NetCDF4

Average Size: 121 MB

Frequency: 10 to 12 orbits a day

Max n° of files a day: 12

Satellite: GCOM-W1

Instrument: AMSR2 (Advanced Microwave Scanning Radiometer 2)

Projection: Geos (Satellite)

Naming Convention:

AMSR2-OCEAN_v2r0_GW1_s*_e*_c*.nc



Python Script Available

Web Page:

www.ospo.noaa.gov/Products/atmosphere/gpds/maps.html

Note - On the file naming convention for the GCOM-W1 AMSR2 files:

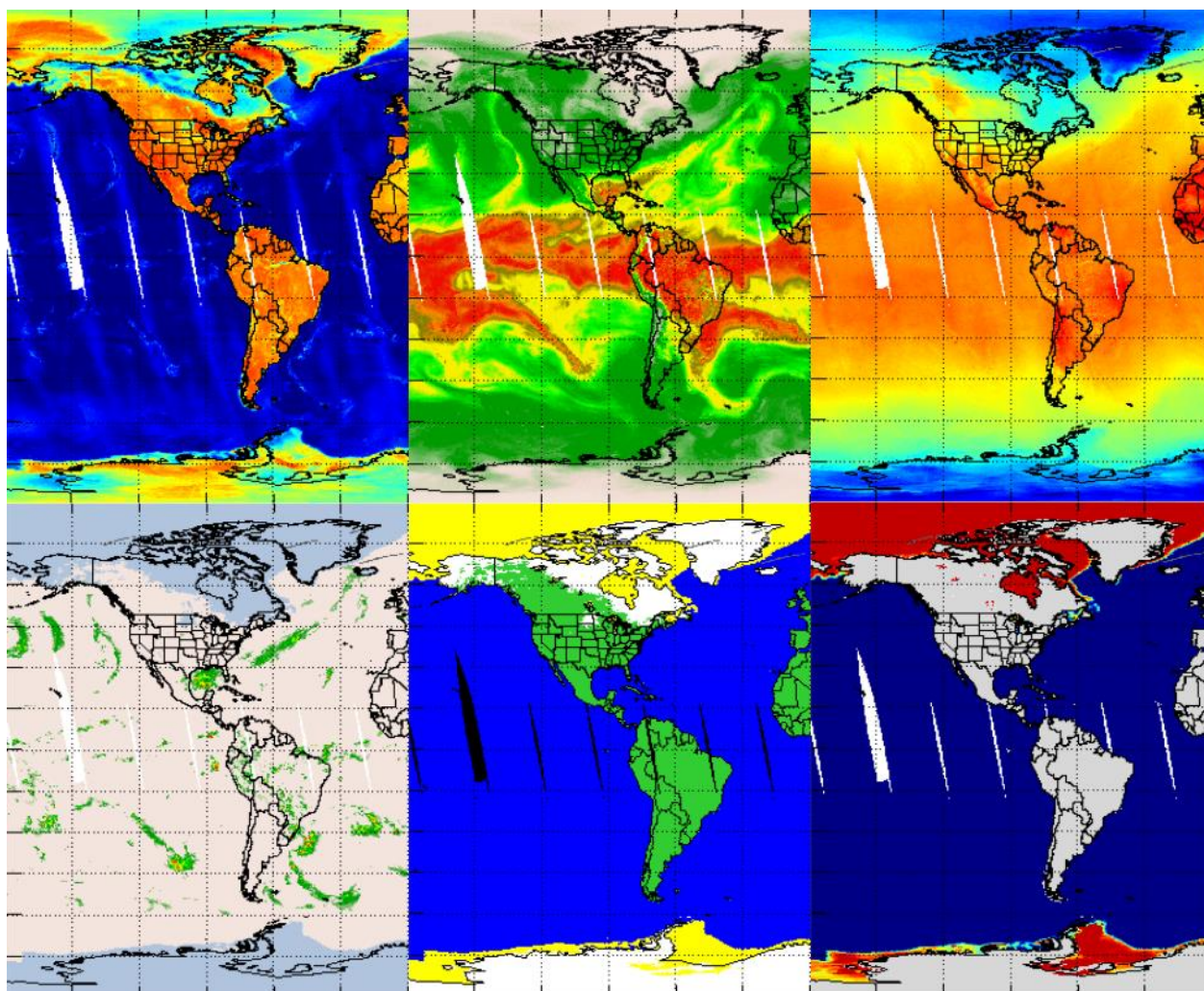
sYYYYJJJHHMMSSs: Observation Start

eYYYYJJJHHMMSSs: Observation End

cYYYYJJJHHMMSSs: File Creation

5.3 MIRS (Microwave Integrated Retrieval System)

- **Precipitation and Surface Properties (Emissivity, Chi Square, CLW, Snow Grain Size, IWP, LWP, Sfc Pressure, Rain Rate, Snowfall Rate, RWP, Sea Ice, May Year Ice, First Year Ice, Snow Cover, SWE, Temperature, TPW, Skin Temp., Wind Speed, Water Vapor, etc)**



Data Provider: NOAA-NESDIS

Folder: JPSS/PRODUCTS/MIRS

Format: NetCDF4

Average Size: 353 KB

Frequency: 3 minutes average

Coverage: GOES-East Footprint

Satellite: NPP (will be changed to NOAA-20)

Instrument: ATMS (Advanced Technology Microwave Sounder)

Projection: Geos

Naming Convention:

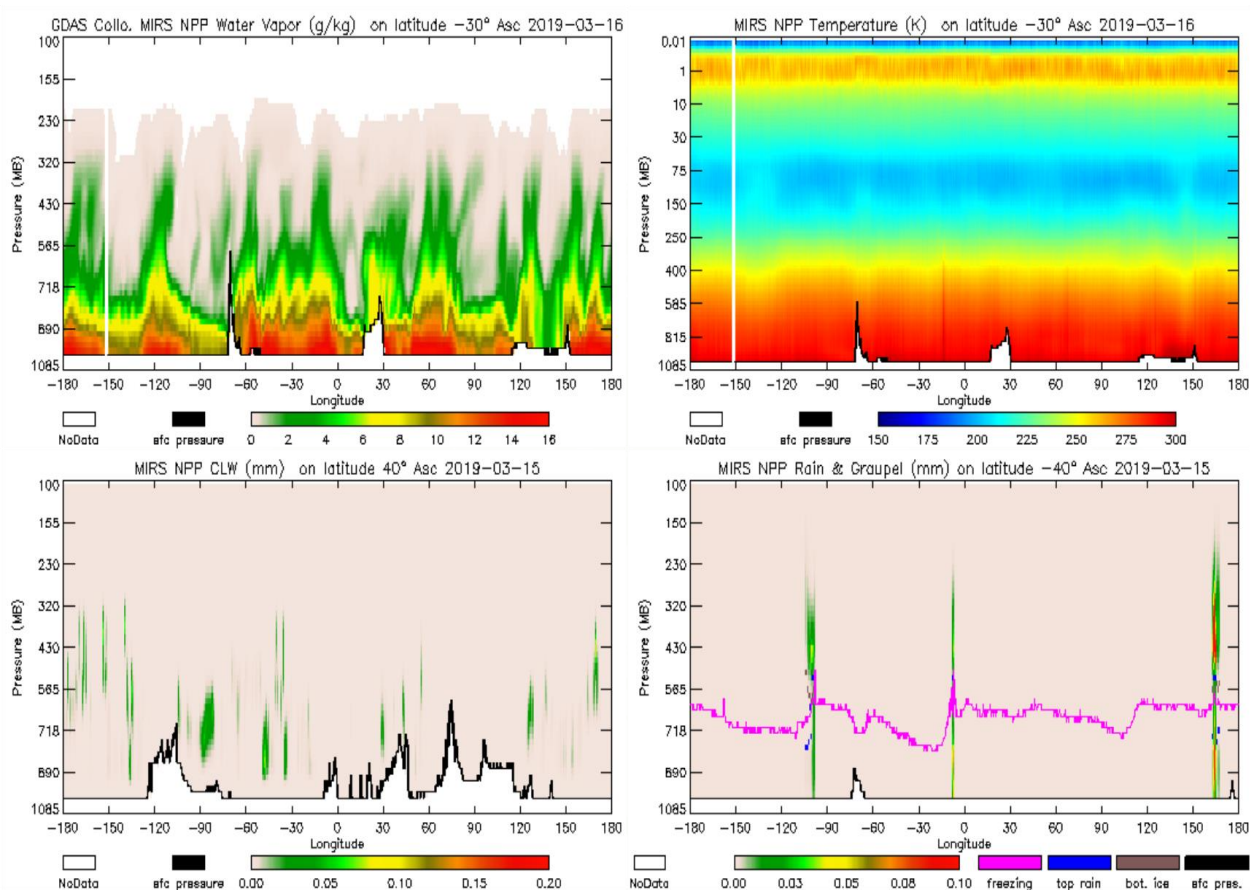
NPR-MIRS-IMG_V11r3_npp_s*_e*_c*.nc



Python Script Available

Web Page: www.star.nesdis.noaa.gov/mirs/index.php

- **Temperature and Moisture Profiles (Temperature, Water Vapor Content, CLW, Rain, Graupel, Rain and Graupel)**



Data Provider: NOAA-NESDIS

Folder: JPSS/PRODUCTS/MIRS

Format: NetCDF4

Average Size: 353 KB

Frequency: 3 minutes average

Coverage: GOES-East Footprint

Satellite: NPP (will be changed to NOAA-20)

Instrument: ATMS (Advanced Technology Microwave Sounder)

Projection: Geos

Naming Convention:

NPR-MIRS-SND_V11r3_npp_s*_e*_c*.nc



Python Script Available

Web Page:

www.star.nesdis.noaa.gov/mirs/index.php

Note - On the file naming convention for the MIRS files:

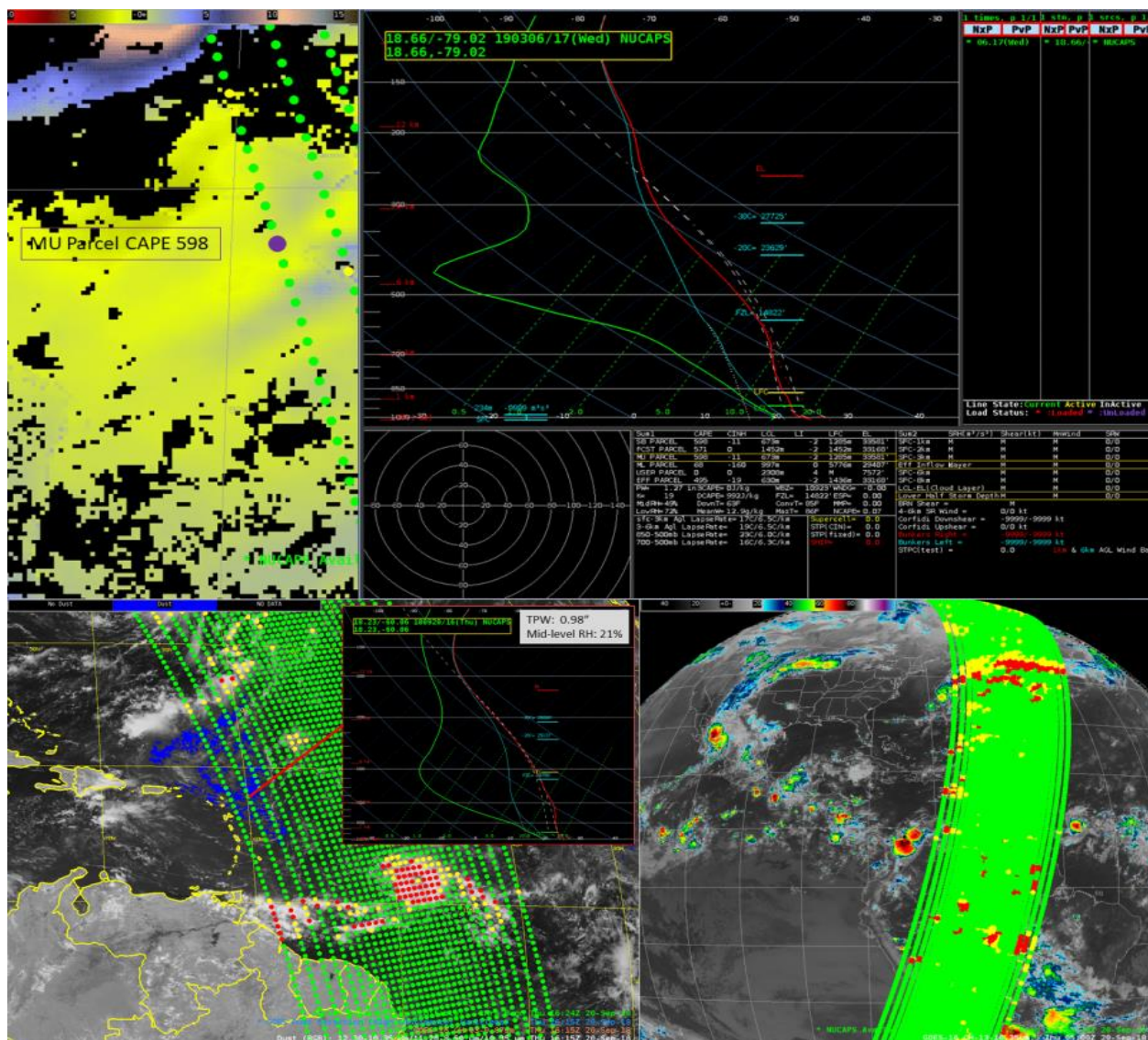
sYYYYJJJHHMMSSs: Observation Start

eYYYYJJJHHMMSSs: Observation End

cYYYYJJJHHMMSSs: File Creation

5.4 NUCAPS (NOAA Unique Combined Atmospheric Processing System)

- Sounding Products



Data Provider: NOAA-NESDIS
Folder: JPSS/PRODUCTS/NUCAPS
Format: NetCDF4
Average Size: 3 MB
Files per day: 500 average
Satellite: NOAA-20
Projection: Geos



Python Script Available

Naming Convention:
 NUCAPS-EDR_v2r0_npp_s*_e*_c*.nc

Web Page:
www.ospo.noaa.gov/Products/atmosphere/soundings/nucaps/index.html

Note: Sample imagery from CIMMS Satellite Blog
cimms.ssec.wisc.edu/goes/blog/?s=NUCAPS

Note - On the file naming convention for the NUCAPS files:

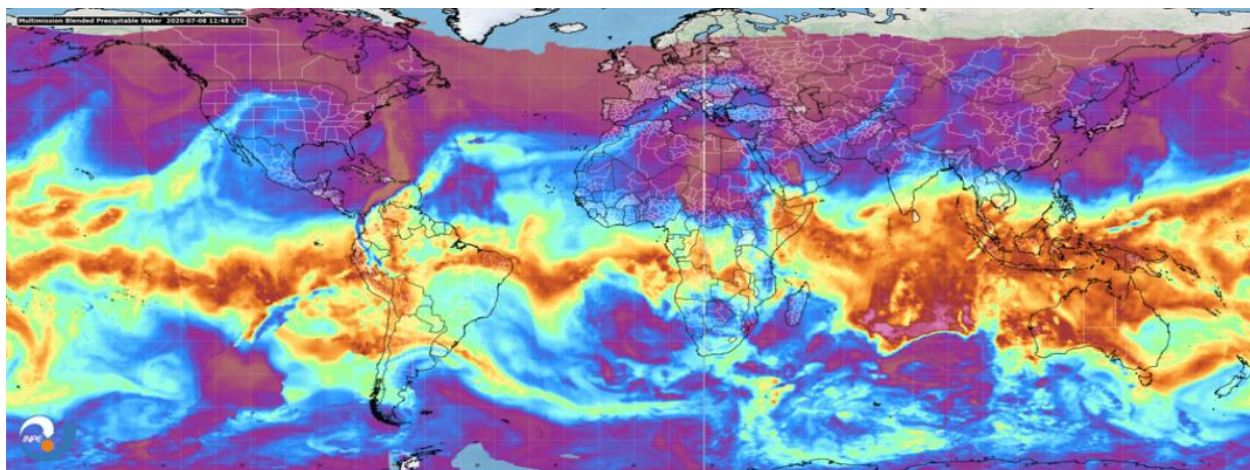
sYYYYJJJHHMMSSs: Observation Start

eYYYYJJJHHMMSSs: Observation End

cYYYYJJJHHMMSSs: File Creation

5.5 BLENDED PRODUCTS (TPW, TPW Anomaly and Rain Rate)

- Blended Total Precipitable Water



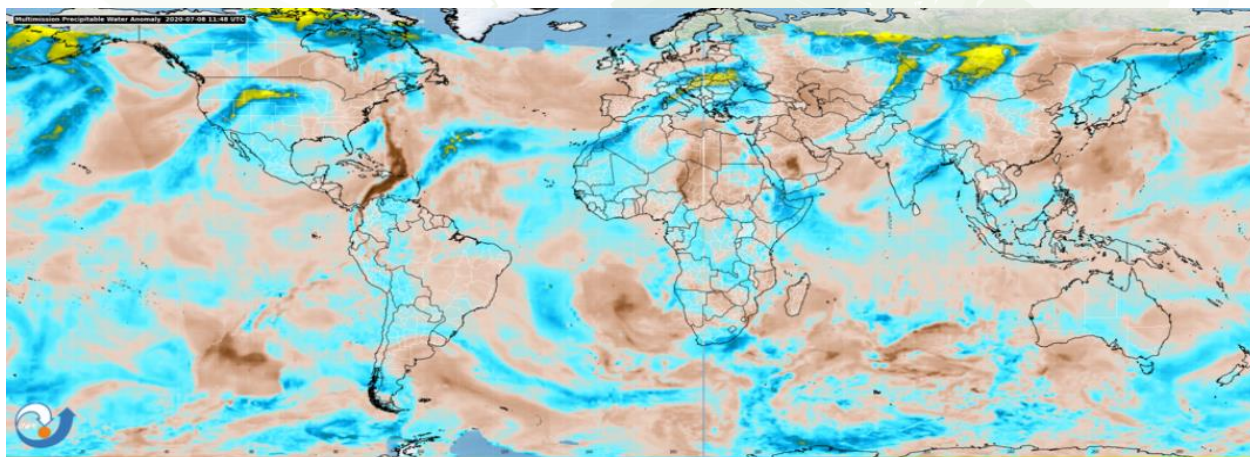
Data Provider: NOAA-NESDIS
Folder: JPSS/PRODUCTS/BTPW
Format: NetCDF4
Average Size: 9 MB
Frequency: Hourly
Max n° of files a day: 24
Projection: Mercator (centered at 160 W)
Resolution: 16 km

Satellites: NOAA-18, NOAA-19, NOAA-20, Metop-A, Metop-B, S-NPP, GCOM-W1, GPM, GOES-West, Met-GPS
Naming Convention:
 BHP-TPW_v01r0_blend_sYYYYJJJHHMMSSs_eYYYYJJJHHMMSSs_cYYYYJJJHHMMSSs.nc

 Python Script Available

Web Page:
www.ospo.noaa.gov/Products/bTPW/Overview.html

- Blended Total Precipitable Water Anomaly



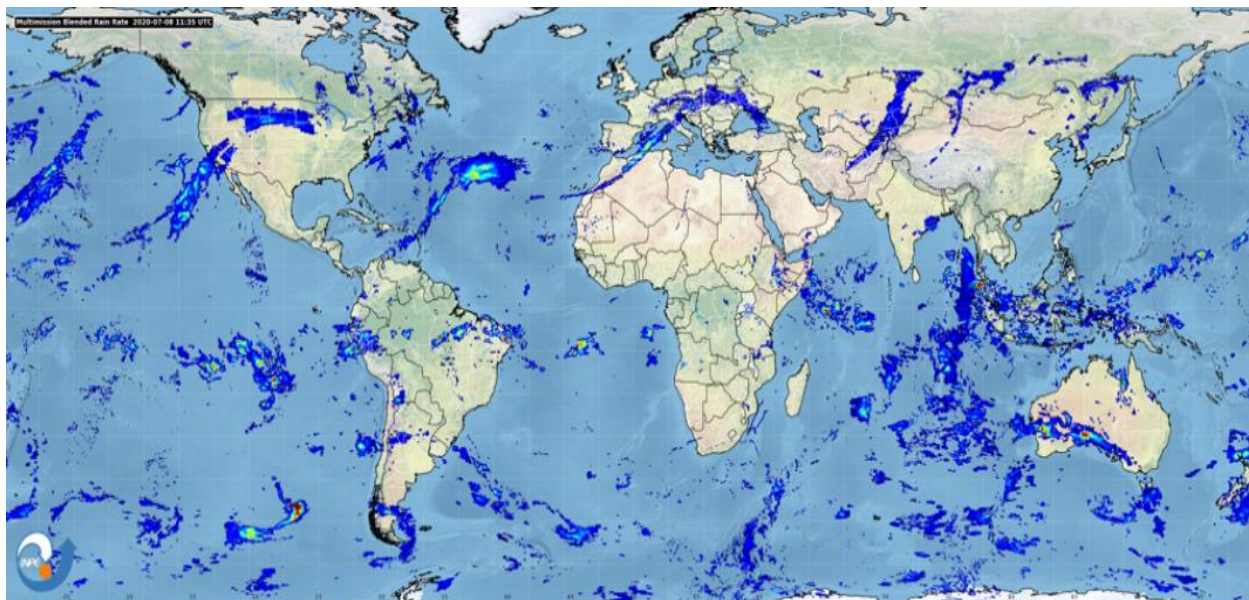
Data Provider: NOAA-NESDIS
Folder: JPSS/PRODUCTS/BTPW
Format: NetCDF4
Average Size: 9 MB
Frequency: Hourly
Max n° of files a day: 24
Projection: Mercator (centered at 160 W)
Resolution: 16 km

Satellites: NOAA-18, NOAA-19, NOAA-20, Metop-A, Metop-B, S-NPP, GCOM-W1, GPM, GOES-West, Met-GPS
Naming Convention:
 BHP-PCT_v01r0_blend_sYYYYJJJHHMMSSs_eYYYYJJJHHMMSSs_cYYYYJJJHHMMSSs.nc

 Python Script Available

Web Page: www.ospo.noaa.gov/Products/bTPW/Overview.html

- **Blended Rain Rate**



Data Provider: NOAA-NESDIS
Folder: JPSS/PRODUCTS/BTPW
Format: NetCDF4
Average Size: 2.5 MB
Frequency: Hourly
Max n° of files a day: 24
Projection: Mercator (centered at 160 W)
Resolution: 16 km

Satellites: NOAA-18, NOAA-19, NOAA-20, Metop-A, Metop-B, S-NPP, GCOM-W1, GPM, GOES-West, Met-GPS
Naming Convention:
 BHP-RR_v01r0_blend_sYYYYJJJHHMMSSs_eYYYYJJJHHMMSSs_cYYYYJJJHHMMSSs.nc

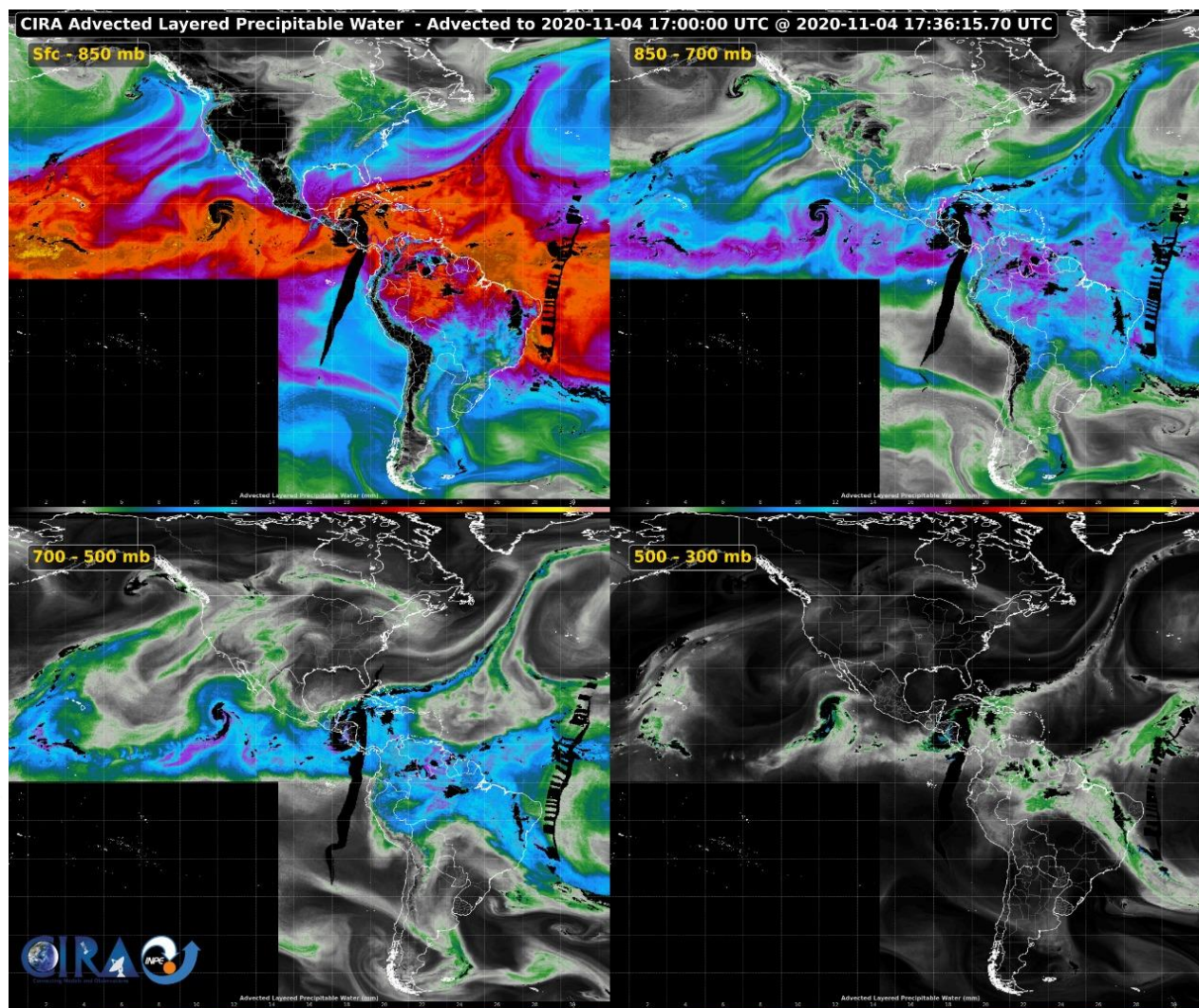
 Python Script Available

Web Page: <https://www.ospo.noaa.gov/Products/bRR/>

Note - On the file naming convention for the Blended Product files:

sYYYYJJJHHMMSSs: Observation Start
eYYYYJJJHHMMSSs: Observation End
cYYYYJJJHHMMSSs: File Creation

5.6 CIRA ADVECTED LAYERED PRECIPITABLE WATER



Data Provider: CIRA

Folder: CIRA

Format: HDF

Average Size: 45 MB

Frequency: Hourly

Naming Convention:

YYYYJJJHHMMSS_ADVECT_COMPOSITE.HDF



Python Script Available

Web Page:

https://rammb2.cira.colostate.edu/trainings/visit/training_sessions/advection_layer_precipitable_water_product/

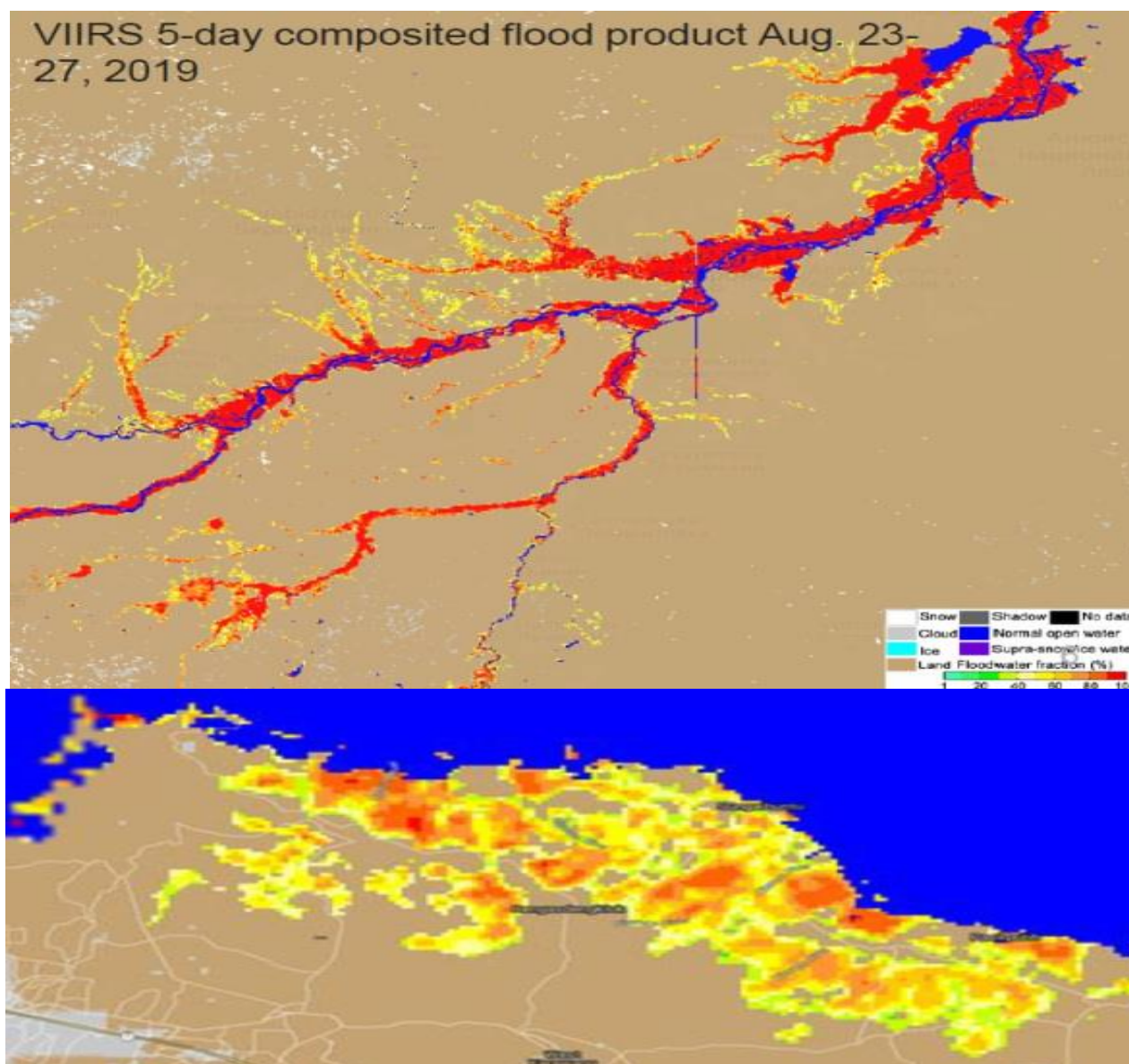
Note - On the file naming convention for the CIRA ALPW files:

YYYY: Year

JJJ: Julian Day

HHMMSS: Hour / Minute / Seconds

5.7 FLOOD MAPPING PRODUCTS



Data Provider: CIMSS

Folders:

CIMSS/Flood-ABI: GOES-16 ABI Hourly Composites

Naming convention: River-Flood-ABI_YYYYMMDD_HHMNSS.part00X.force.tif

Note: Parts 1 to 4 (full disk divided in 4 regions)

CIMSS/Flood-Composite: Suomi-NPP and NOAA-20 VIIRS 5-day Composite (daily)

Naming convention: RIVER-FLDglobal-composite_YYYYMMDD.part0XX.tif

Note: Parts 01 to 41, according to the areas of interest (AOI's) shown in slide n°7 (<https://www.ssec.wisc.edu/flood-map-demo/>)

CIMSS/Flood-Joint: Joint VIIRS / ABI flood product (daily)

Naming convention: RIVER-FLD-joint-ABI_YYYYDDMM.part0XX.tif

Note: Parts 01 to 41, according to the areas of interest (AOI's) shown in slide n°7 (<https://www.ssec.wisc.edu/flood-map-demo/>)

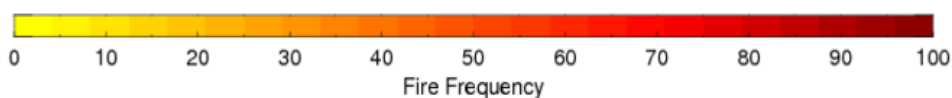
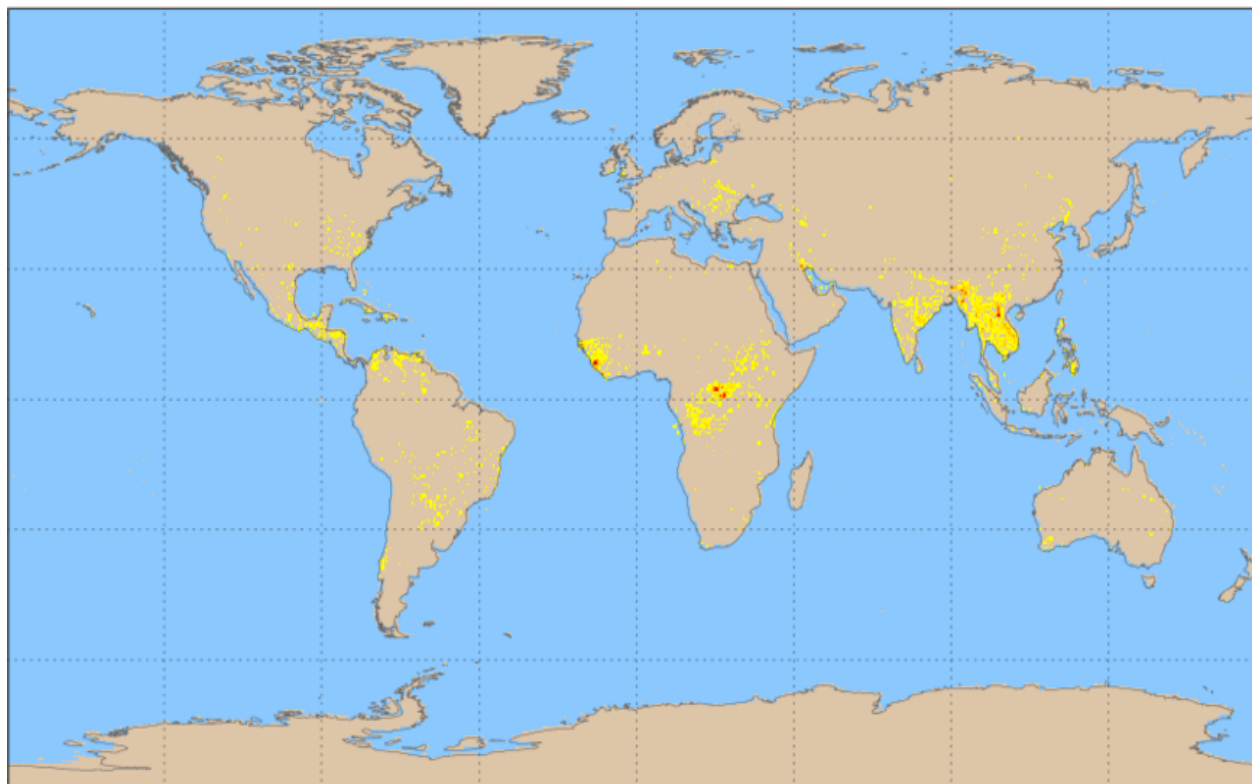


Python Script Available

5.8 ACTIVE FIRES

Suomi NPP - VIIRS - NDE - Active Fires

18 Mar 2016



NOAA/NESDIS/STAR

Data Provider: NOAA-NESDIS

Folder: JPSS/PRODUCTS/AF

Format: NetCDF4

Average Size: 150 KB

Frequency: 3 minutes average

Satellite: NPP (will be changed to JPSS)

Projection: Geos

Naming Convention:

AF_v1r1_npp_s*_e*_c*.nc

Web Page:

www.star.nesdis.noaa.gov/jpss/fires.php

Note - On the file naming convention for the Active Fire files:

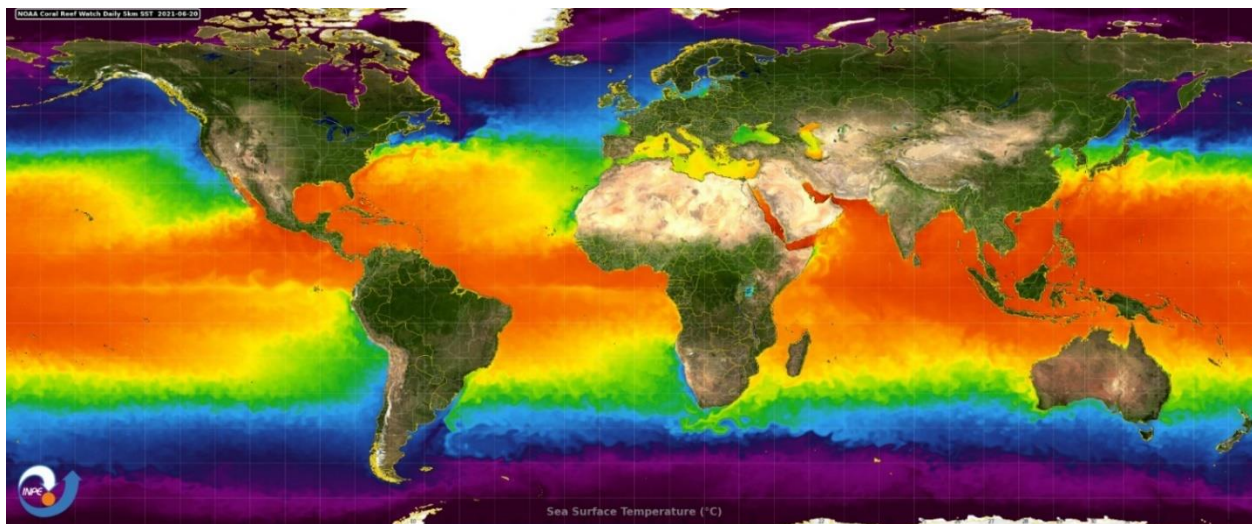
sYYYYJJJHHMMSSs: Observation Start

eYYYYJJJHHMMSSs: Observation End

cYYYYJJJHHMMSSs: File Creation

5.9 SEA SURFACE TEMPERATURE, ANOMALY AND TREND

- SST - NOAA Coral Reef Watch Daily (5 km)



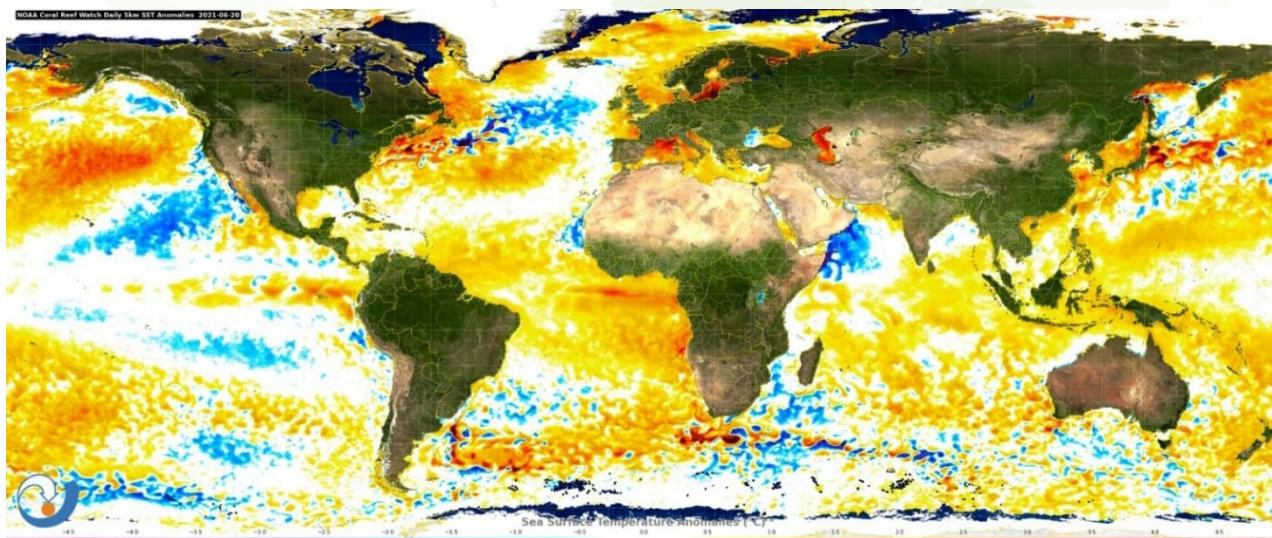
Data Provider: NOAA-NESDIS
Folder: NOAA-NESDIS
Format: NetCDF4
Average Size: 12 MB
Frequency: Daily
Resolution: 5 km

Naming Convention:
 coraltemp_v3.1_YYYYMMDD.nc

 Python Script Available

Web Page:
<https://coralreefwatch.noaa.gov/>

- SST Anomaly - NOAA Coral Reef Watch Daily (5 km)



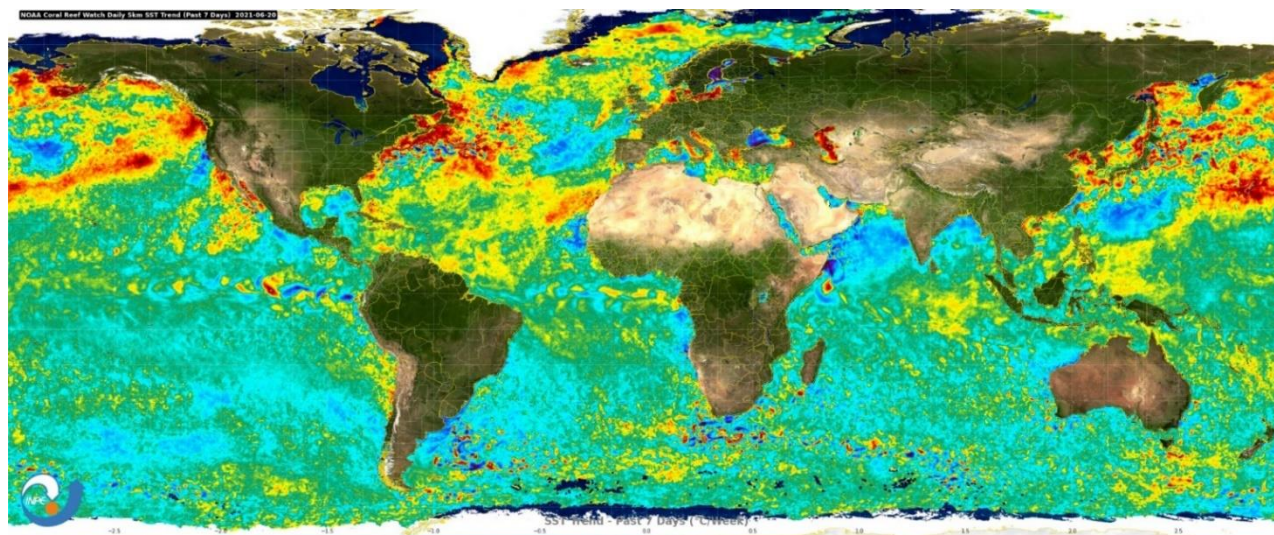
Data Provider: NOAA-NESDIS
Folder: NOAA-NESDIS
Format: NetCDF4
Average Size: 11 MB
Frequency: Daily
Resolution: 5 km

Naming Convention:
 ct5km_ssta_v3.1_YYYYMMDD.nc

 Python Script Available

Web Page:
<https://coralreefwatch.noaa.gov/>

- 7-Day SST Trend - NOAA Coral Reef Watch Daily (5 km)



Data Provider: NOAA-NESDIS

Folder: NOAA-NESDIS

Format: NetCDF4

Average Size: 54 MB

Frequency: Daily

Resolution: 5 km

Naming Convention:

ct5km_sst-trend-7d_v3.1_YYYYMMDD.nc



Python Script Available

Web Page:

<https://coralreefwatch.noaa.gov/>

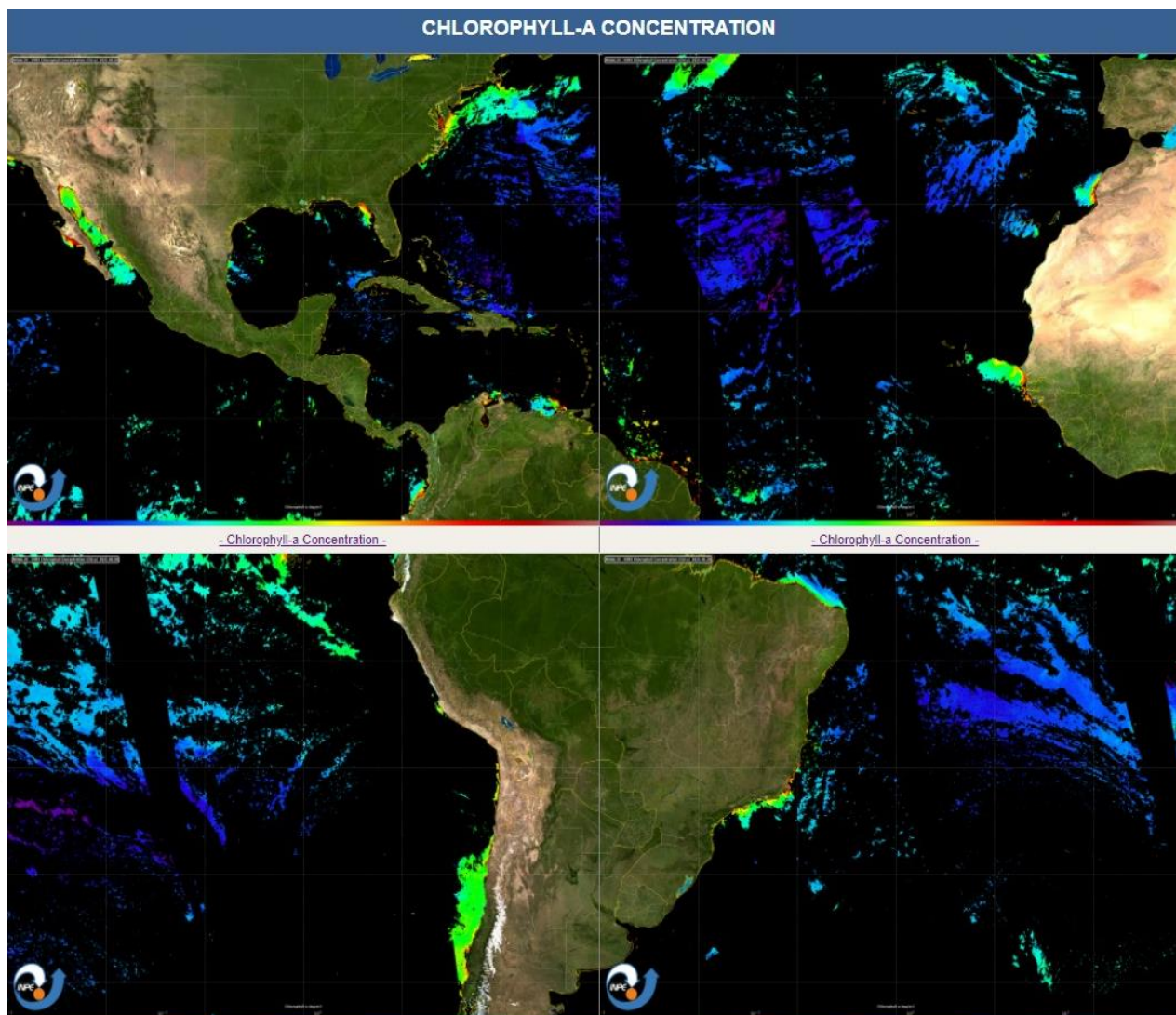
Note - On the file naming convention for the Coral Reef Watch SST Product files:

YYYY: Year

MM: Month

DD: Day

5.10 OCEAN COLOR



Data Provider: NOAA-NESDIS

Folder: JPSS/PRODUCTS/OC

Format: NetCDF4

Average Size: 250 MB, regions VY, WY, VX, WX / 10 MB, regions VW and WU)

Frequency: 1 file per day, per region

Satellite: NOAA-20

Naming Convention:

VR1VCW_C*_C*_**_*_*_*_*_*_*_*_*_VY00_edgemask_chlora.nc / WY00_edgemask_chlora.nc

VR1VCW_C*_C*_**_*_*_*_*_*_*_*_*_VX00_edgemask_chlora.nc / WX00_edgemask_chlora.nc

VR1VCW_C*_C*_**_*_*_*_*_*_*_*_*_VW00_edgemask_chlora.nc / WU00_edgemask_chlora.nc



Python Script Available

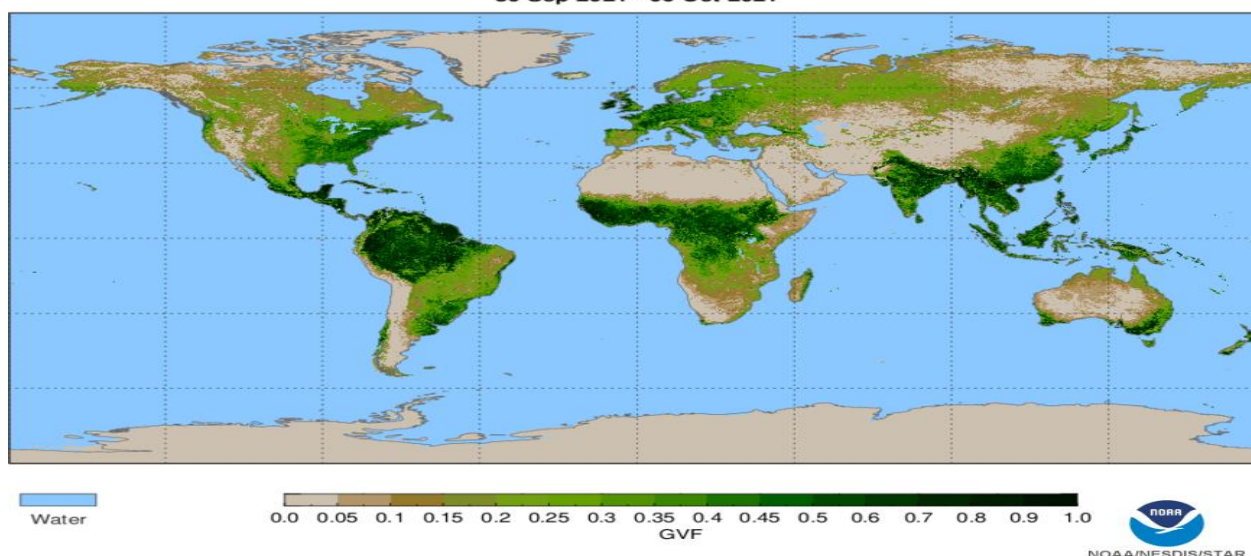
Web Page:

<https://www.star.nesdis.noaa.gov/jpss/oceancolor.php>

5.11 VEGETATION

- VIIRS Green Vegetation Fraction Weekly Composite (4 km)

Suomi NPP VIIRS Green Vegetation Fraction
30 Sep 2021 - 06 Oct 2021



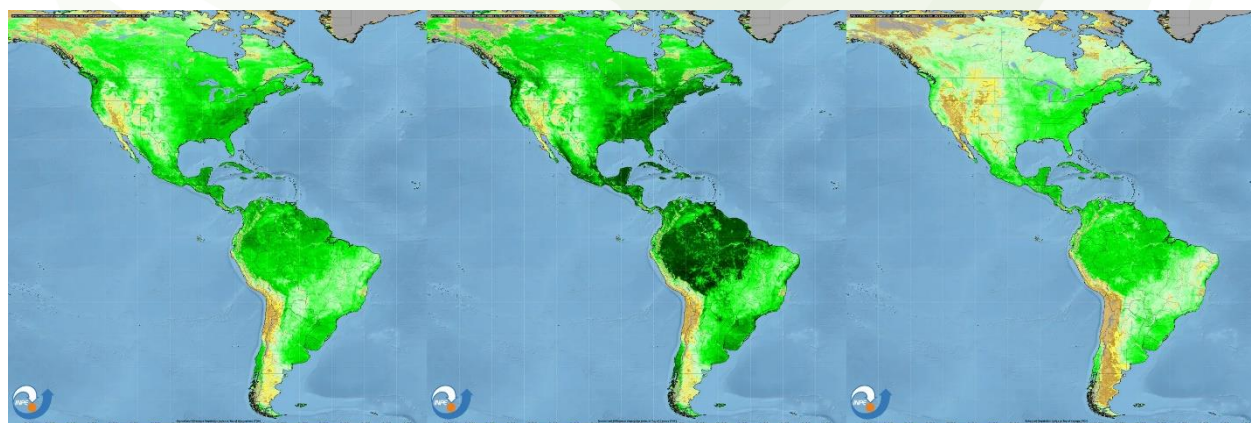
Data Provider: NOAA-NESDIS
Folder: JPSS/PRODUCTS/VEGETATION
Format: NetCDF4
Average Size: 10.5 MB
Frequency: Daily
Resolution: 4 km

Naming Convention:
GVF-WKL-GLB_v2r3_j01_s*_e*_c*.nc

 Python Script Available

Web Page:
https://www.star.nesdis.noaa.gov/jpss/EDRs/products_VegIndex.php

- VIIRS NDVI (Top of Atmosphere), NDVI (Top of Canopy), EVI (Top of Canopy) (4 km)



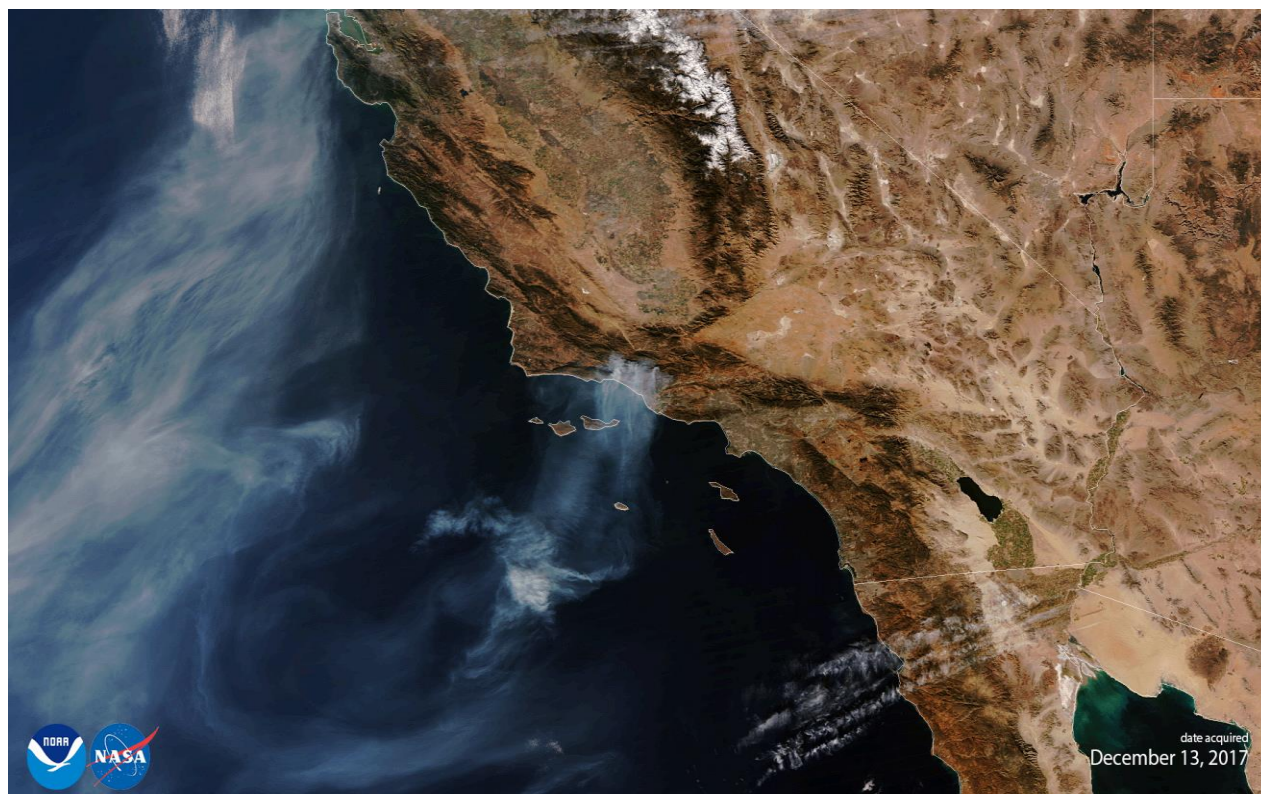
Data Provider: NOAA-NESDIS
Folder: JPSS/PRODUCTS/VEGETATION
Format: NetCDF4
Average Size: 204 MB
Frequency: Daily
Resolution: 4 km

Naming Convention:
VI-WKL-GLB_v1r4_j01_s*_e*_c*.nc

 Python Script Available

Web Page:
https://www.star.nesdis.noaa.gov/jpss/EDRs/products_VegIndex.php

5.12 EVENTS



Sample Image Description (broadcasted through the GNC-A “JPSS1EVENTS” Channel):

NOAA-20 VIIRS RSB First Light Image: Captured Thomas Fire - Twenty-five days after JPSS-1 (NOAA-20) was launched into Earth orbit, NOAA-20 sent back its first Visible Infrared Imaging Radiometer Suite (VIIRS) science data on December 13, 2017.

This VIIRS true color image captured the aggressive wildfires across the Southern California region which forced thousands to flee their homes. The fire spanned more than 370 square miles and remains the strongest blaze for firefighters to battle in Ventura and Santa Barbara counties.

Data Provider: NOAA-NESDIS

Folder: JPSS/EVENTS

Format: PNG's and other imagery

Average Size: Varies

Frequency: Varies

Max n° of files a day: Varies

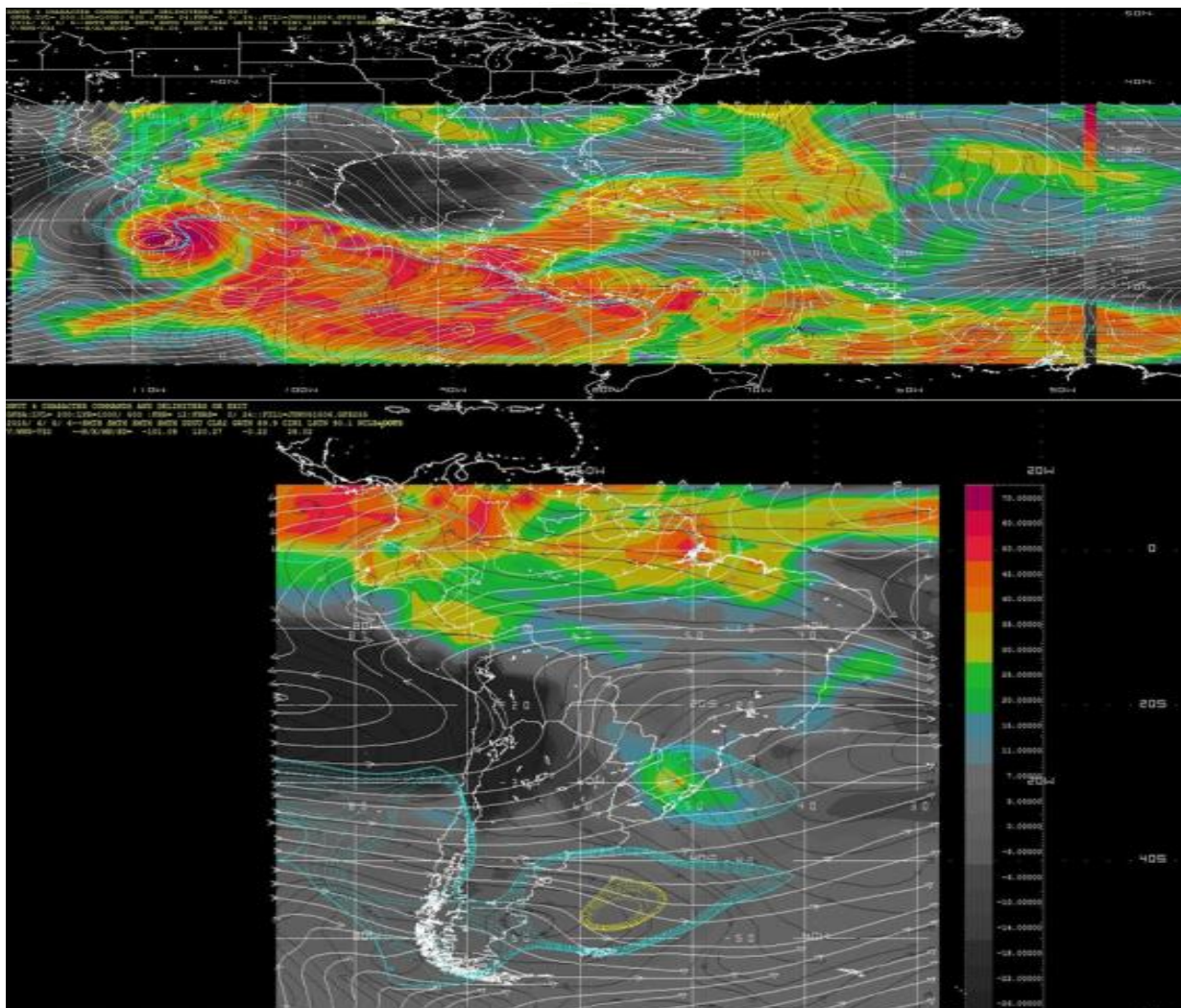
Satellite: NPP (will be changed to JPSS)

Instrument: VIIRS (Visible Infrared Imaging Radiometer Suite)

6 FORECAST PRODUCTS

6.1 GFS (Global Forecast System)

- 0.5° South America and Caribbean Forecast Products



Data Provider: MARN El Salvador

Folder: MARN-El Salvador

Format: GRIB2

Frequency: 2 cycles per day (00h and 12h), 40 files per cycle, 80 files per region (160 files per day).

Average Size, per file: 11 MB (Central America and Caribbean) / 14 MB (South America) – 2 GB per region

Spatial Resolution: 0.5 degree

Naming Convention: gfs_RRR_op50_CC.f0FFF, Where:

RRR: Region (**crb**: Central America + Caribbean / **sam**: South America)

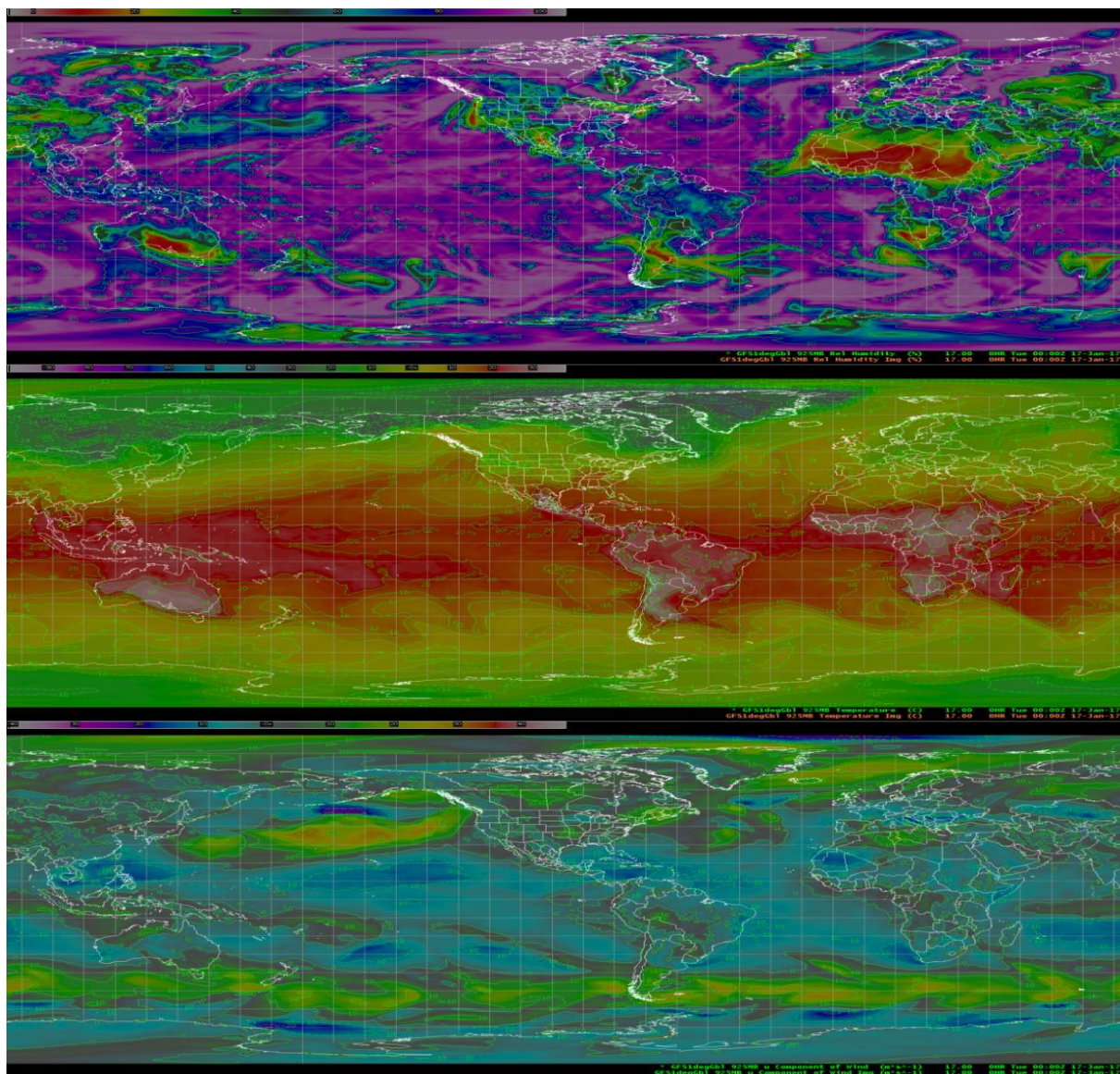
CC: Execution Cycle (00 and 12 UTC) | **FFF:** Forecast (0 ~ 120 h, every 3 hours)



Python Script Available

Note: Please access the list of GFS bands and their meaning at [this link](#).

- 1.0° Global Forecast Products



Data Provider: NWS

Folder: ISCS-GRIB2

Format: GRIB2

Frequency: 4 cycles per day (00h, 06h, 12h and 18h), 0 ~ 240 h Forercast

Average Size, per file: 62 KB

Spatial Resolution: 1 degree

Naming Convention: T_PPPPPKWBDDHMMN_C_KWBC_YYYYMMDDxxxxxx_xxxxxxx-xxxx.bin

Where:

PPPPPP: Product Type, forth letter varies from "A" (+0h) to "Y" (+240h),

DDHMMN: Day, Hour, Minutes from model run (0000 / 0600 / 1200 / 1800)

YYYYMMDD: Year, month and day for that given run



Python Script Available

Note: Please access the list of GFS fields and their nomenclature at [this link](#).

7 MISCELLANEOUS

- **Monitoring of Vegetation Fires - Multimission**



Data Provider: INPE

Folder: INPE

Format: Shapefile (SHP + SHX + DBF)

Average Size: 5.0 MB

Frequency: Hourly

Coverage: Global

Max n° of files a day: 24

Satellites: AQUA, TERRA, METOP-B, METOP-C, NOAA-18, NOAA-19, NOAA-20, S-NP and GOES-16

Naming Convention:

INPE_MVF_YYYYMMDDHHMN

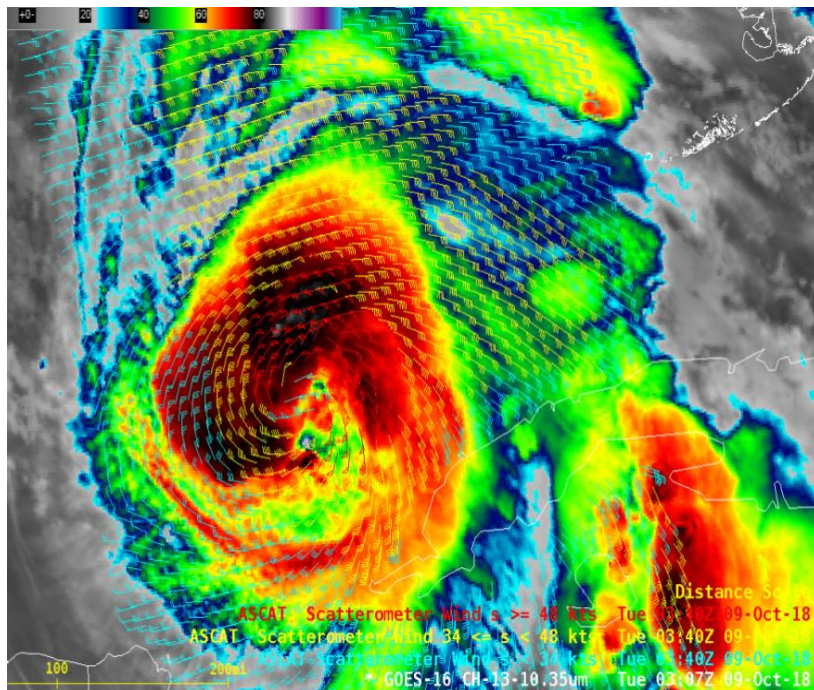


Python Script Available

Web Page:

www.inpe.br/queimadas

- **ASCAT Coastal Winds at 12.5 km Swath Grid - METOP (Equivalent neutral 10m winds over the global oceans, with specific sampling to provide as many observations as possible near the coasts)**



Data Provider: EUMETSAT

Folder: EUMETSAT

Format: BUFR

Average Size: 400 kB

Frequency: 3 minutes per satellite

Max n° of files a day: 480 per satellite

Satellite: METOP A / B

Instrument: ASCAT

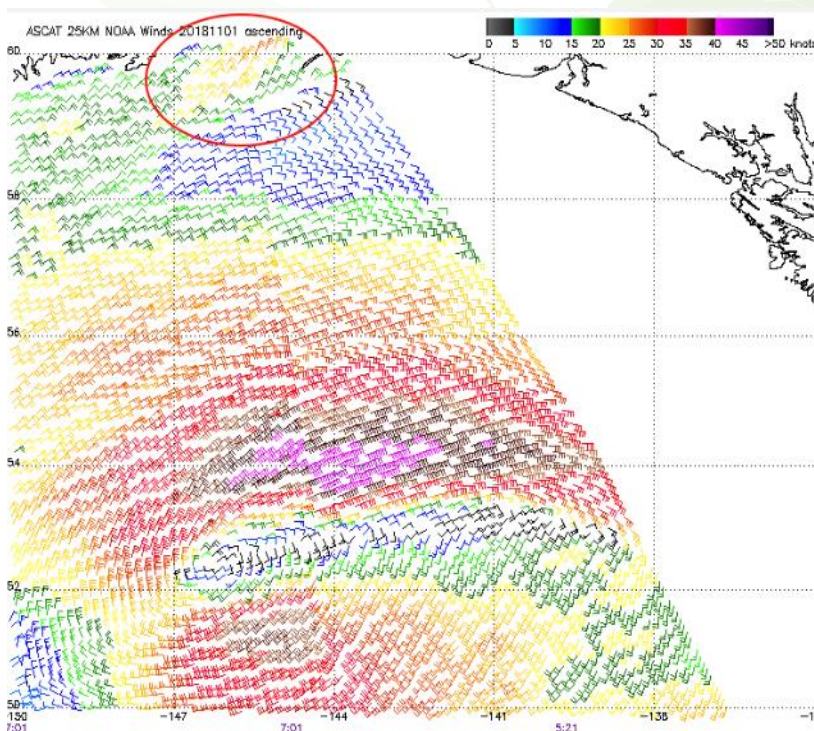
Naming Conventions:

ascat_YYYYMMDD_HHMMSS_metopa_orbit#_
eps_o_coa_ovw.l2_bufr
ascat_YYYYMMDD_HHMMSS_metopb_orbit#_
eps_o_coa_ovw.l2_bufr

Note: Sample image from CIMMS Satellite Blog

(cimss.ssec.wisc.edu/goes/blog/?s=ASCAT)

- **ASCAT Coastal Winds at 25 km Swath Grid - METOP (Surface Soil Moisture, Mean Surface Soil Moisture, Rain Fall Detection, Snow Cover, Frozen Land Fraction, Inundation and Wetland Fraction, Topographic Complexity, Model Wind Speed at 10 m, Model Wind Direction at 10 m, Ice Probability, Ice age ("a" parameter), Wind Speed at 10 m and Wind direction at 10 m)**



Data Provider: EUMETSAT

Folder: EUMETSAT

Format: BUFR

Average Sizes:

385 kB (12.5 km) / 95 kB (25 km)

Frequency: 3 minutes per satellite

Max n° of files a day: 480 per per satellite

Satellites: METOP A / B

Instrument: ASCAT

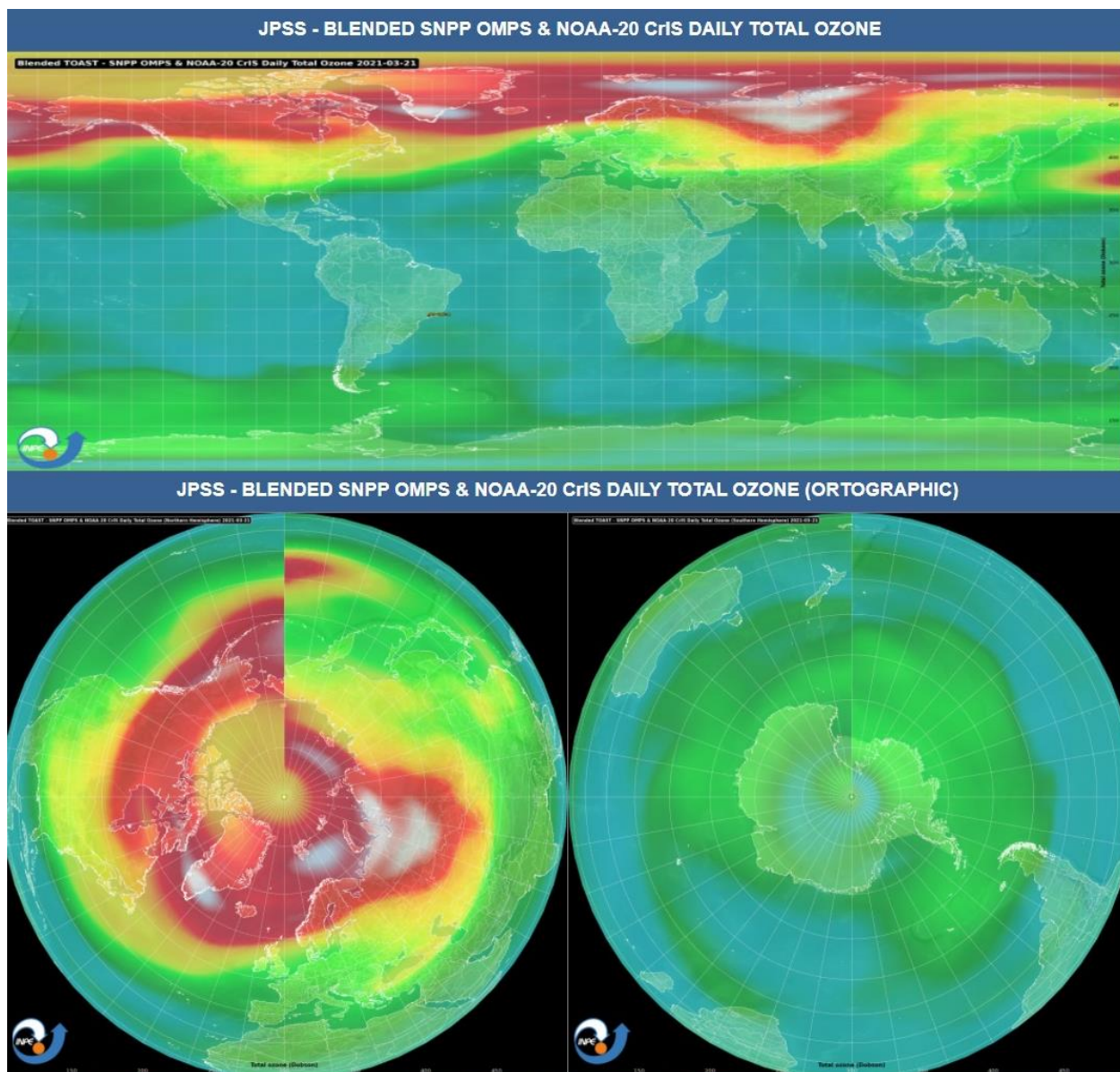
Naming Conventions:

ascat_YYYYMMDD_HHMMSS_metopa_orbit#_
eps_o_250.l2_bufr
ascat_YYYYMMDD_HHMMSS_metopb_orbit#_
eps_o_250.l2_bufr

Note: Sample image from CIMMS Satellite Blog

(cimss.ssec.wisc.edu/goes/blog/?s=ASCAT)

- **Blended Total Ozone Analysis - TOAST**



Data Provider: NOAA-NESDIS

Folder: JPSS/PRODUCTS/TOAST

Format: GRIB2

Average Size: 100 KB

Frequency: Daily

Naming Convention:

TOAST_Blended-grb_j01_CRIN_j01_OMPS_YYYYMMDD.grb

LTOAST – SNPP OMPS & CrIS Daily Total Ozone in GRIB

NTOAST – SNPP OMPS & NOAA-20 CrIS Daily Total Ozone in GRIB

NTOASTJ1 – NOAA-20 OMPS & CrIS Daily Total Ozone in GRIB

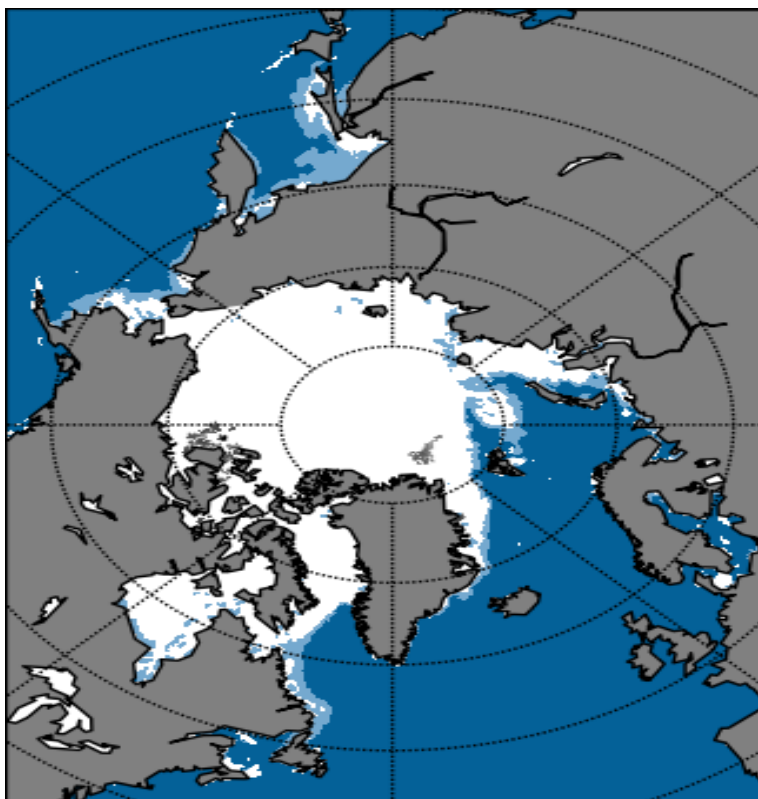


Python Script Available

Web Page:

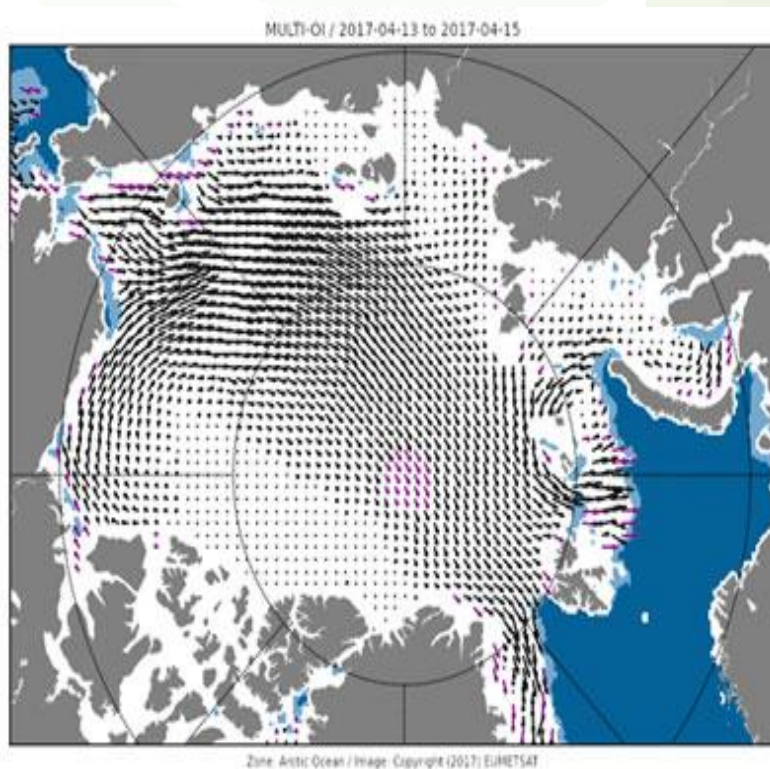
<https://www.star.nesdis.noaa.gov/jpss/ozone.php>

- **Medium Resolution Sea Ice Drift - METOP**



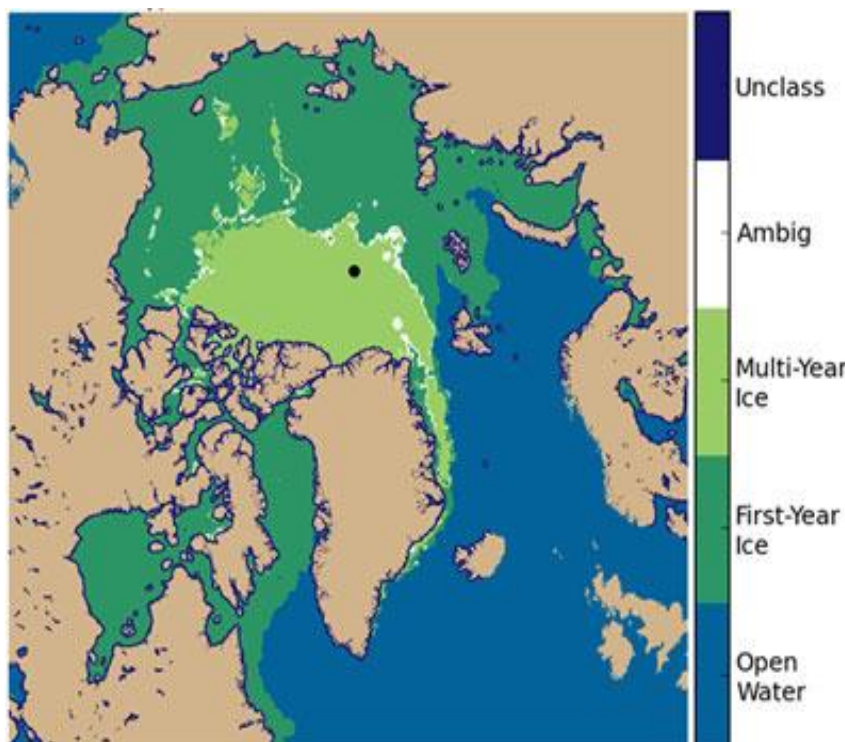
Data Provider: EUMETSAT
Folder: EUMETSAT
Format: NetCDF
Files per day: 2
Volume per day: 1.2 MB
Naming Convention:
 S-OSI_-DMI_-MTOP-NH_MRSIDRIFT-
 <date>.nc.gz

- **Global Low Resolution Sea Ice Drift (North and South Hemispheres) - Multimission**



Data Provider: EUMETSAT
Folder: EUMETSAT
Format: NetCDF
Files per day: 2
Volume per day: 130 kB per file
Naming Convention:
 S-OSI_-NOR_-MULT-NH_LRSIDRIFT-
 <data>.nc.gz
 S-OSI_-NOR_-MULT-SH_LRSIDRIFT-
 <data>.nc.gz

- **Global Sea Ice Type (North and South Hemispheres) - Multimission**



Data Provider: EUMETSAT

Folder: EUMETSAT

Format: NetCDF

Files per day: 2

Volume per day: 4 MB per file

Naming Convention:

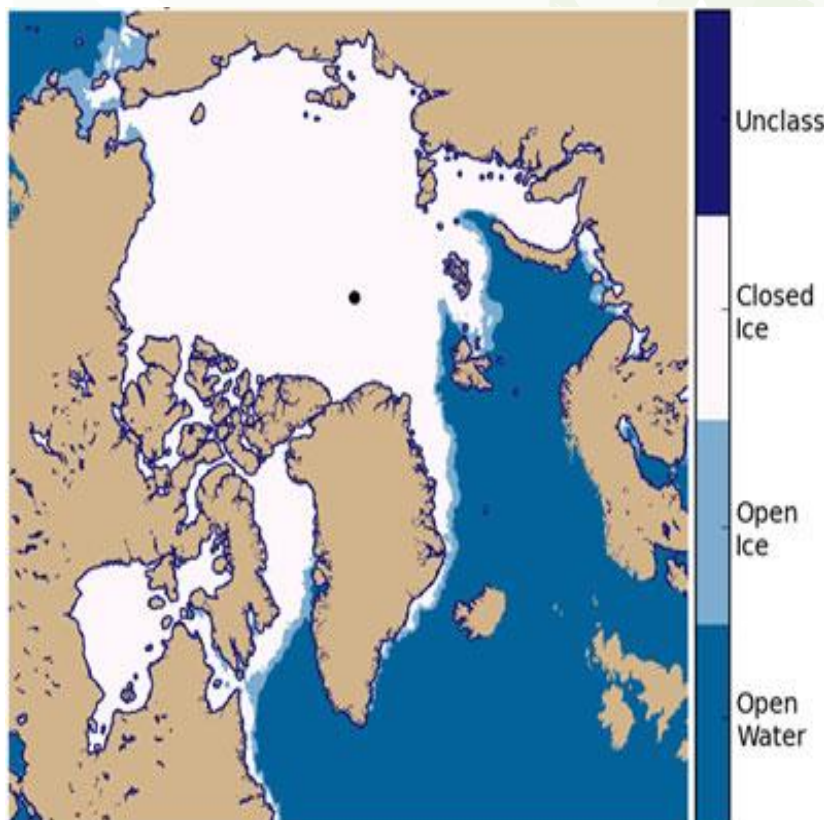
S-OSI_-NOR_-MULT-GL_SH_TYPEn_-
<date>.nc.gz

S-OSI_-NOR_-MULT-GL_NH_TYPEn_-
<date>.nc.gz



Python Script Available

- **Global Low Resolution Sea Ice Drift (North and South Hemispheres) - Multimission**



Data Provider: EUMETSAT

Folder: EUMETSAT

Format: NetCDF

Files per day: 2

Volume per day: 4 MB per file

Naming Convention:

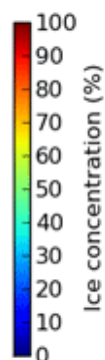
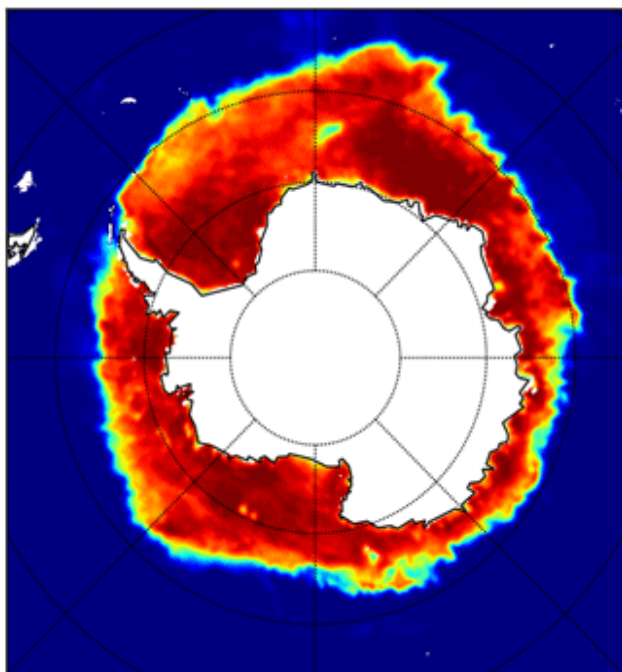
S-OSI_-NOR_-MULT-GL_SH_EDGEEn_-
<date>.nc.gz

S-OSI_-NOR_-MULT-GL_NH_EDGEEn_-
<date>.nc.gz



Python Script Available

- Global Sea Ice Concentration (North and South Hemispheres) - DMSP



Data Provider: EUMETSAT

Folder: EUMETSAT

Format: NetCDF

Files per day: 2

Volume per day: 6 MB per file

Naming Convention:

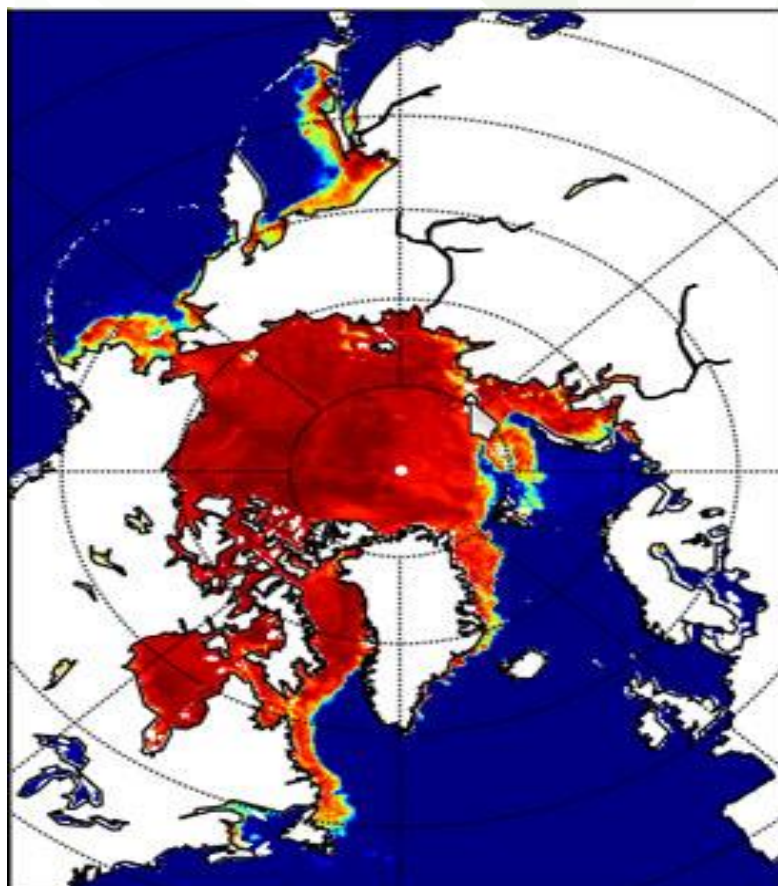
S-OSI_-DMI_-MULT-GL_NH_CONCn__-<date>.nc.gz

S-OSI_-DMI_-MULT-GL_SH_CONCn__-<date>.nc.gz



Python Script Available

- Global Sea Ice Concentration (North and South Hemispheres) - DMSP AMSR



Data Provider: EUMETSAT

Folder: EUMETSAT

Format: NetCDF

Files per day: 2

Volume per day: 7 MB per file

Naming Convention:

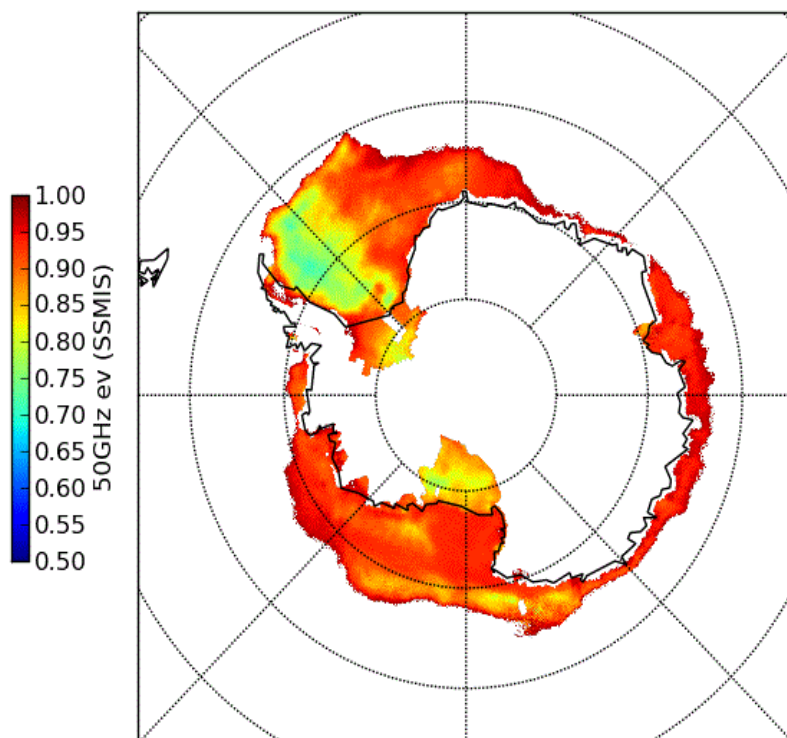
S-OSI_-DMI_-AMSR-GL_NH_CONC__-<date>.nc.gz

S-OSI_-DMI_-AMSR-GL_SH_CONC__-<date>.nc.gz



Python Script Available

- Global Sea Ice Emissivity - North and South Hemispheres (50 GHz - AMSU and SSMIS)



Data Provider: EUMETSAT

Folder: EUMETSAT

Format: NetCDF

Files per day: 2

Volume per day: 6 MB per file

Naming Convention:

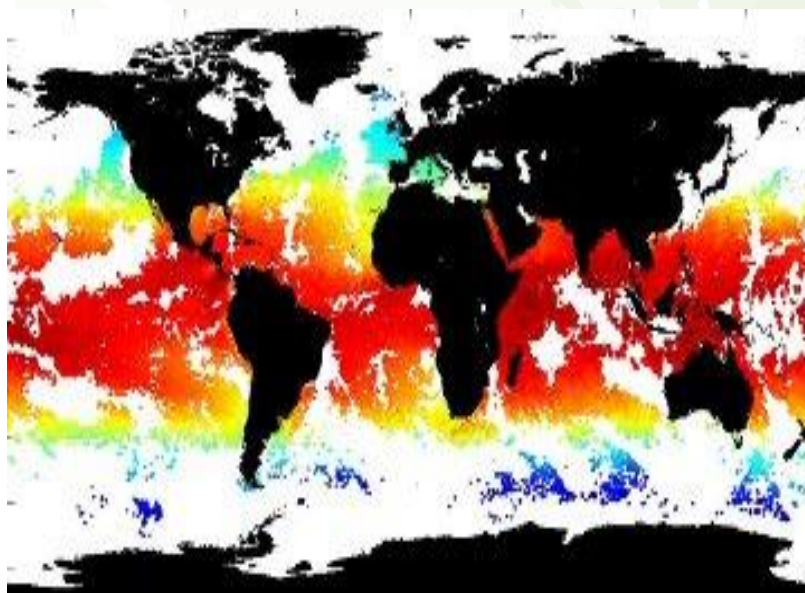
S-OSI_-DMI_-MULT-GL_NH_EMIS__-<date>.nc.gz

S-OSI_-DMI_-MULT-GL_SH_EMIS__-<date>.nc.gz



Python Script Available

- Sea Surface Temperature (IASI) - METOP



Data Provider: EUMETSAT

Folder: EUMETSAT

Format: NetCDF

Files per day: 480

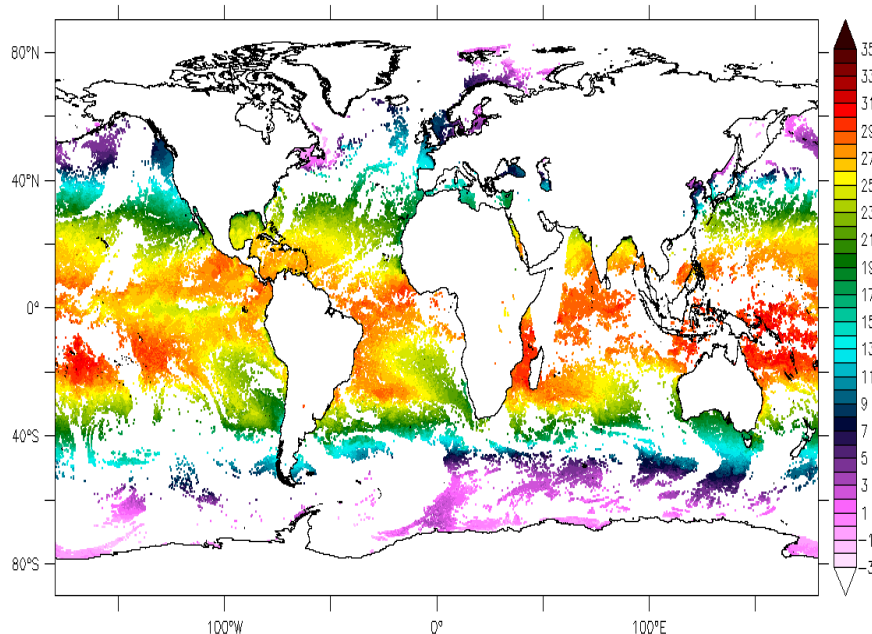
Volume per day: 130 kB

Naming Convention:

S-OSI_-FRA_-MTOPIASISSTFIELD-<date>.nc

- **Sea Surface Temperature (0.05°) - METOP**

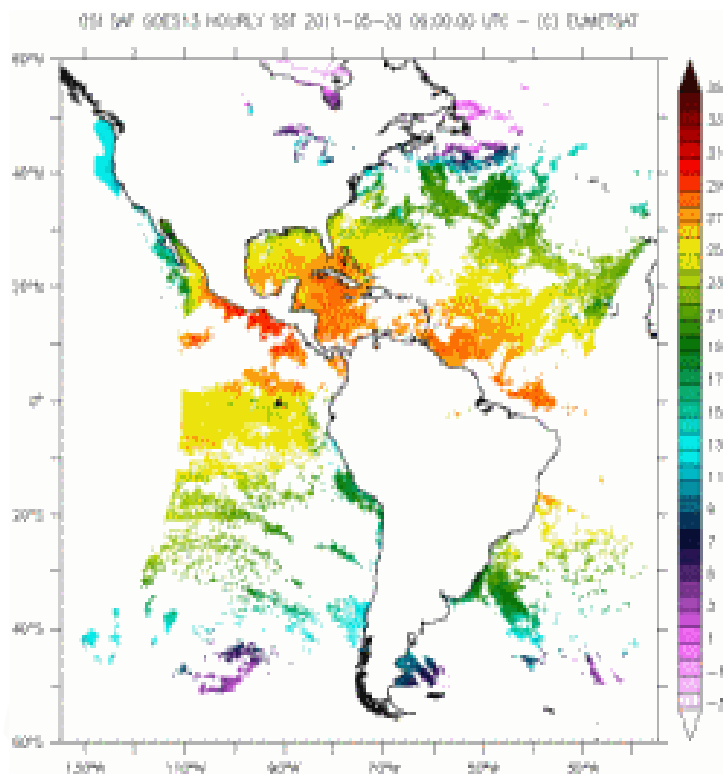
OSI SAF METOP01 GLB SST 2017-01-24 00:00:00 UTC - (C) EUMETSAT



Data Provider: EUMETSAT
Folder: EUMETSAT
Format: NetCDF and GRIB2
Files per day: 2 per format
Volume per day: 40 MB (NetCDF) and 8.5 MB (GRIB2)
Naming Conventions:
 S-OSI_-FRA_-MTOP-
 GLBSST_FIELD-<date>.grb.gz

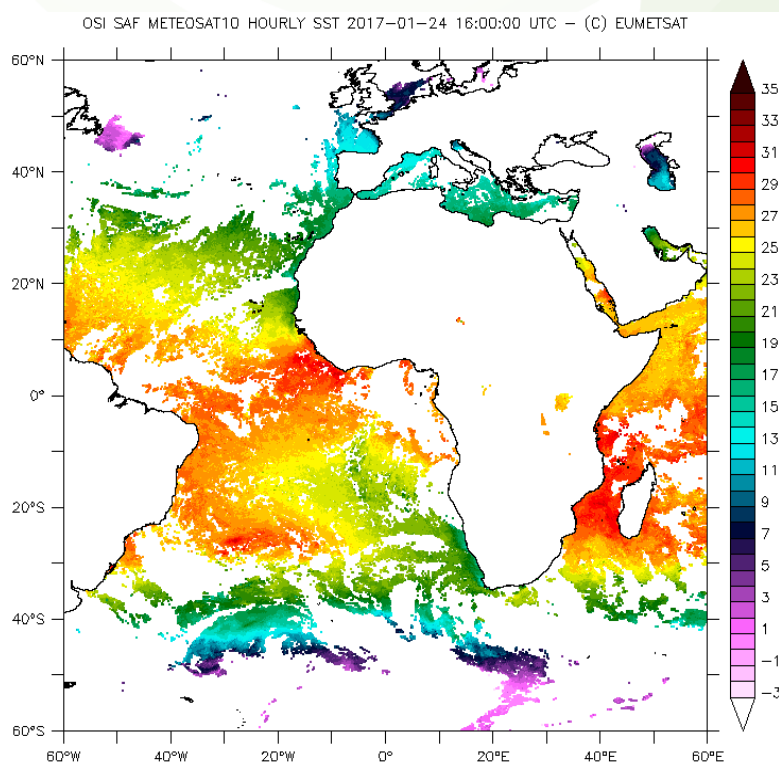
 Python Script Available

- **Sea Surface Temperature - GOES-East**



Data Provider: EUMETSAT
Folder: EUMETSAT
Format: NetCDF and GRIB
Files per day: 24 per format
Volume per day: 11 MB (NetCDF) and 1.7 MB (GRIB)
Naming Conventions:
 S-OSI_-FRA_-GOES-H__SST_FIELD-
 <date>.nc

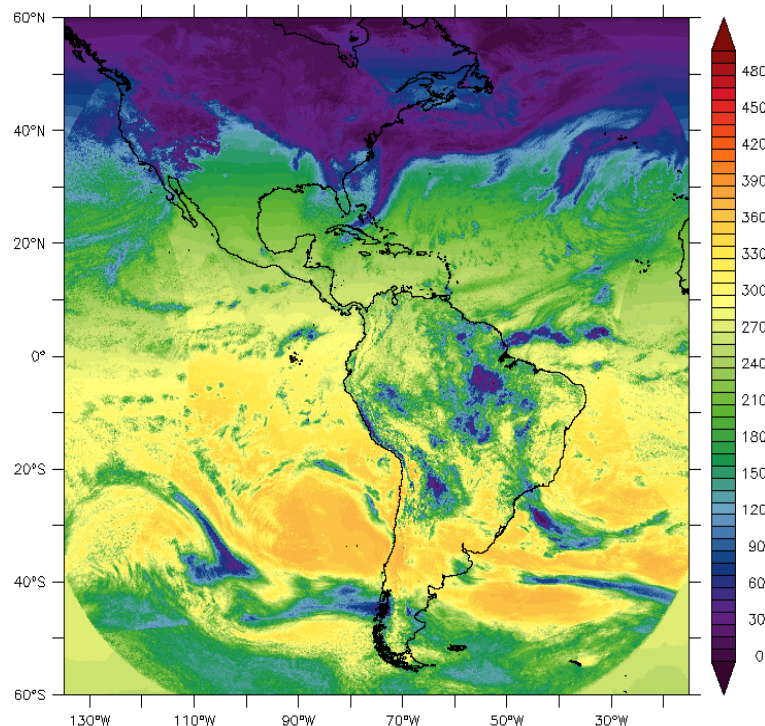
- **Sea Surface Temperature - METEOSAT 0 Degree**



Data Provider: EUMETSAT
Folder: EUMETSAT
Format: NetCDF and GRIB
Files per day: 24 per format
Volume per day: 11 MB (NetCDF) and 11 MB (GRIB)
Naming Conventions:
 S-OSI_-FRA_-MSG_-H__SST_FIELD-
 <date>.nc

• Daily and Hourly Surface Solar Irradiance - GOES-East

OSI SAF GOES13 DAILY SSI 2017-01-23 12:00:00 UTC - (C) EUMETSAT



Data Provider: EUMETSAT

Folder: EUMETSAT

Format: NetCDF

Files per day: 24 (H), 1 (D)

Volume per day: 8 MB

Naming Conventions:

S-OSI_-FRA_-GOES_-DLISSIH_____ -
<date>.nc

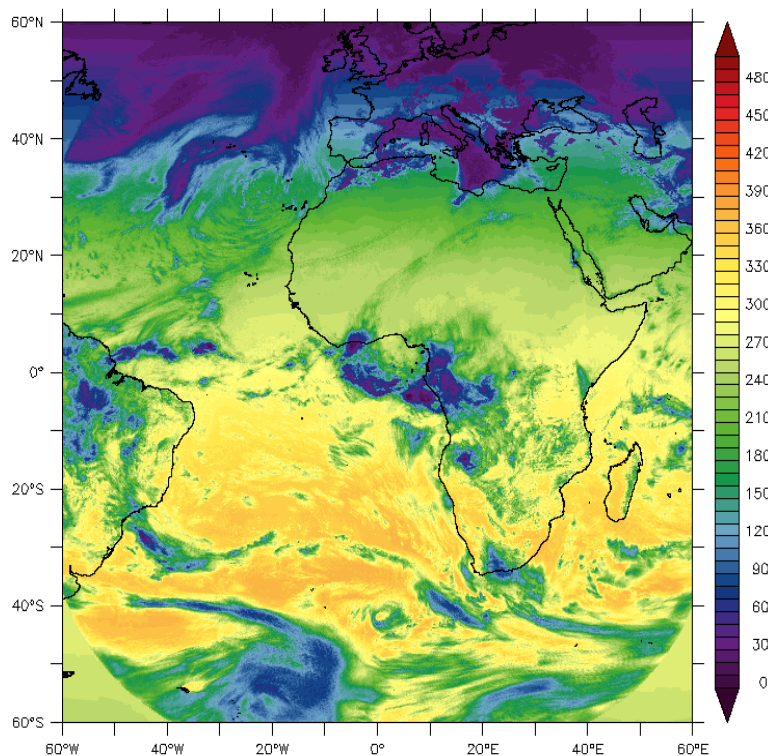
S-OSI_-FRA_-GOES_-DLISSID_____ --
<date>.nc

H: Hourly

D: Daily

• Daily and Hourly Surface Solar Irradiance - METEOSAT 0 Degree

OSI SAF METEOSAT10 DAILY SSI 2017-01-23 12:00:00 UTC - (C) EUMETSAT



Data Provider: EUMETSAT

Folder: EUMETSAT

Format: NetCDF

Files per day: 24 (H), 1 (D)

Volume per day: 8 MB

Naming Conventions:

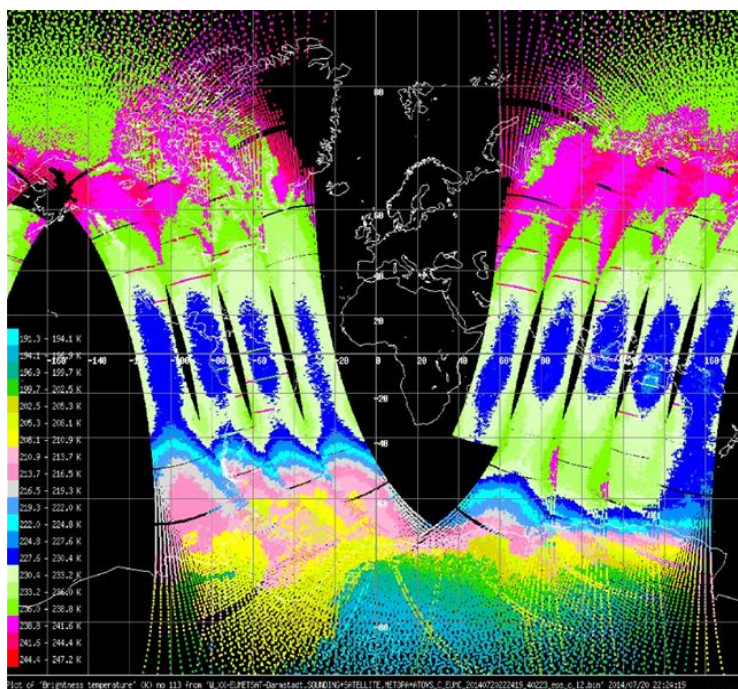
S-OSI_-FRA_-MSG_-DLISSIH_____ -
<date>.nc

S-OSI_-FRA_-MSG_-DLISSID_____ --
<date>.nc

H: Hourly

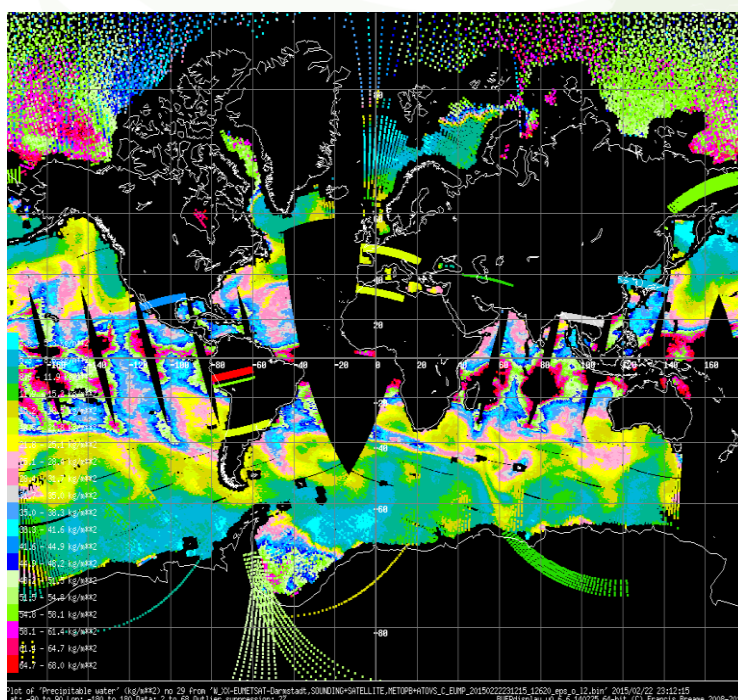
D: Daily

- **Advanced TIROS Operational Sounder (ATOVS) - NOAA-19 (Temperature Profiles, Humidity Profiles, Surface Temperatures, Cloud Top Temperatures, Cloud Top Pressure, Effective Cloud Amount, Cloud Liquid Water Content and Total Columns Precipitable Water)**



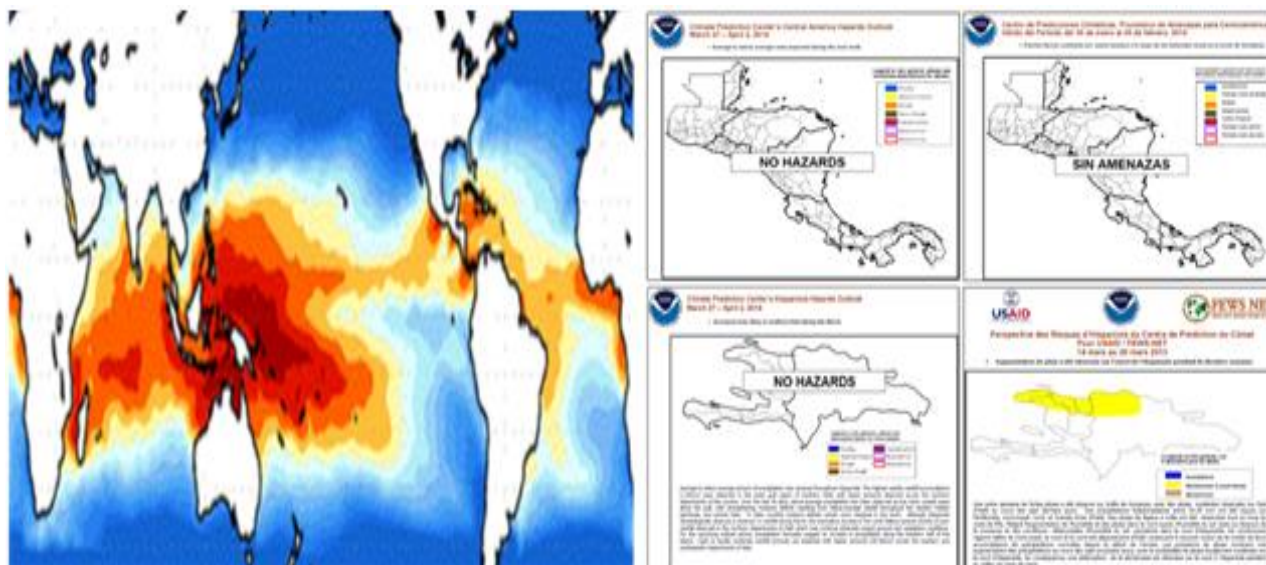
Data Provider: EUMETSAT
Folder: EUMETSAT
Format: BUFR
Average Size: 180 kB
Frequency: 3 minutes
Max n° of files a day: 480
Satellite: METOP A
Instruments: ATOVS / AVHRR
Naming Convention:
 W_XX-EUMETSAT-
 Darmstadt,SOUNDING+SATELLITE,METOPA+
 ATOVS_C_EUMC_YYYYMMDDHHMMNSS_
 ORBIT#_eps_o_l2

- **Advanced TIROS Operational Sounder (ATOVS) - METOP-B (Temperature Profiles, Humidity Profiles, Surface Temperatures, Cloud Top Temperatures, Cloud Top Pressure, Effective Cloud Amount, Cloud Liquid Water Content and Total Columns Precipitable Water)**



Data Provider: EUMETSAT
Folder: EUMETSAT
Format: BUFR
Average Size: 180 kB
Frequency: 3 minutes
Max n° of files a day: 480
Satellite: METOP B
Instruments: ATOVS / AVHRR
Naming Convention:
 W_XX-EUMETSAT-
 Darmstadt,SOUNDING+SATELLITE,METOPB+
 ATOVS_C_EUMC_YYYYMMDDHHMMNSS_ORBI
 T#_eps_o_l2

- **Miscellaneous RANET Products**



Data Provider: RANET

Folder: RANET

Format: GIF

Average Size: 70 kB

per product

Frequency: 60 minutes

per product

Max n° of files a day: 24 per product

Naming Convention:

Hazards Outlook - Central America - English: central_america_hazard

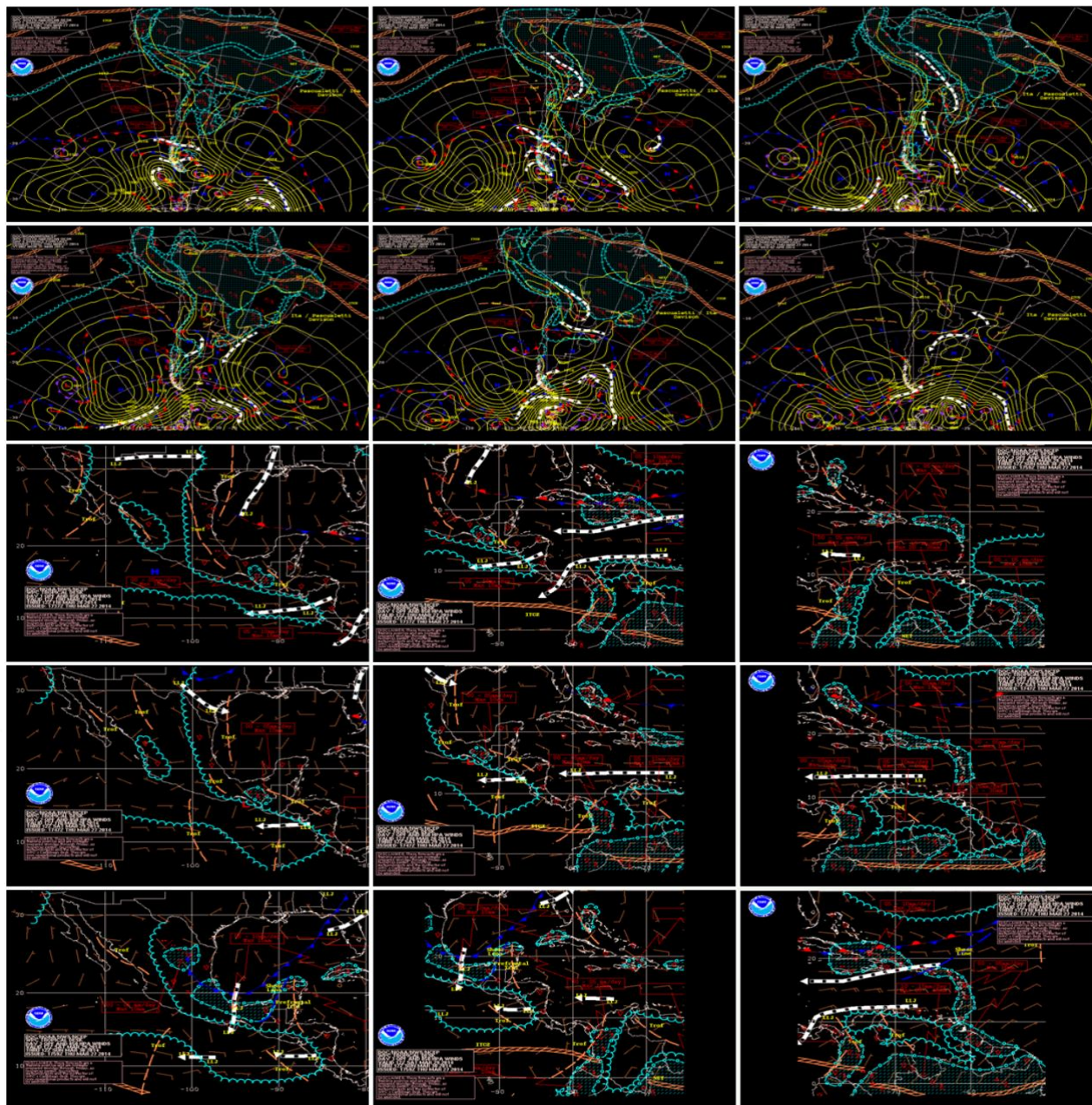
Hazards Outlook - Central America - Spanish: central_america_hazard_sp

Hazards Outlook - Hispaniola Island - English: haiti_hazard

Hazards Outlook - Hispaniola Island - French: haiti_hazard_fr

Sea Surface Temperature - Global: gsstanim

- **Surface Forecast (South Americas) / Quantitative Forecast and Winds (Caribbean)**



Data Provider: RANET

Folder: RANET

Format: GIF

Average Size: 70 kB

per product

Frequency: 60 minutes

per product

Max n° of files a day: 24 per product

Naming Convention:

Surface Forecast - Day 1 - South America: d1

Surface Forecast - Day 2 - South America: d2

Surface Forecast - Day 3 - South America: d3

Surface Forecast - Day 4 - South America: d4

Surface Forecast - Day 5 - South America: d5

Surface Forecast - Day 6 - South America: d6

Quantitative Precipitation Forecast and Winds - Day 1 - West Caribbean: crb1_west

Quantitative Precipitation Forecast and Winds - Day 2 - West Caribbean: crb2_west

Quantitative Precipitation Forecast and Winds - Day 3 - West Caribbean: crb3_west

Quantitative Precipitation Forecast and Winds - Day 1 - Central Caribbean: crb1_central

Quantitative Precipitation Forecast and Winds - Day 2 - Central Caribbean: crb2_central

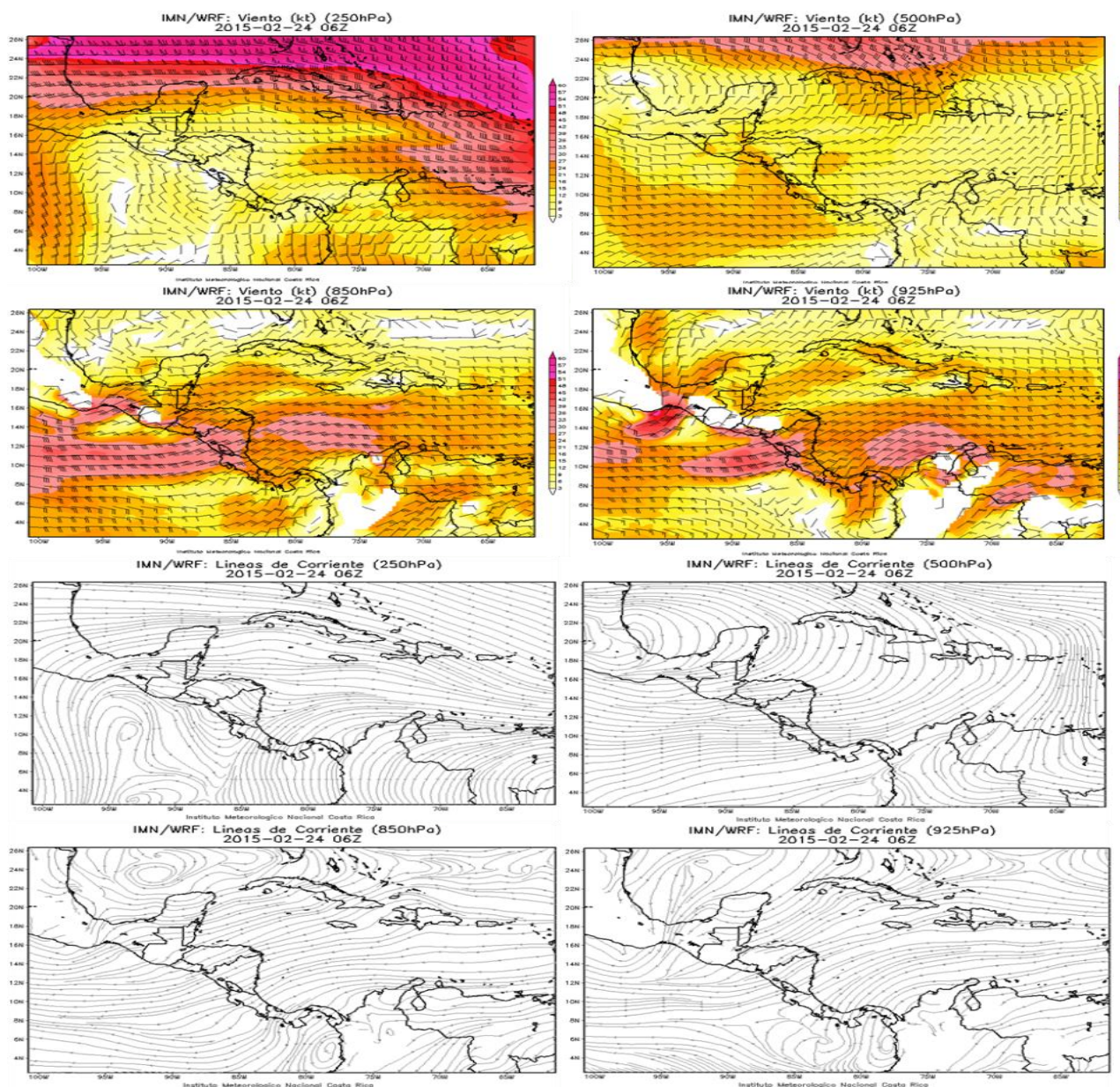
Quantitative Precipitation Forecast and Winds - Day 3 - Central Caribbean: crb3_central

Quantitative Precipitation Forecast and Winds - Day 1 - East Caribbean: crb1_east

Quantitative Precipitation Forecast and Winds - Day 2 - East Caribbean: crb2_east

Quantitative Precipitation Forecast and Winds - Day 3 - East Caribbean: crb3_east

- WRF Stream Lines Forecast and Winds Forecast (250 ~ 925 hPa) - Cent. America and Caribbean



Data Provider: IMN-CostaRica

Folder: IMN-CostaRica

Format: PNG

Average Size: 25 kB

per product

Frequency: Daily, per forecast
per product

Naming Convention:

lineas_de_corriente-06h-250hPa
lineas_de_corriente-12h-250hPa
lineas_de_corriente-18h-250hPa
lineas_de_corriente-24h-250hPa
lineas_de_corriente-30h-250hPa
lineas_de_corriente-36h-250hPa
lineas_de_corriente-06h-500hPa
lineas_de_corriente-12h-500hPa
lineas_de_corriente-18h-500hPa

lineas_de_corriente-24h-500hPa
lineas_de_corriente-12h-850hPa
lineas_de_corriente-30h-500hPa
lineas_de_corriente-36h-500hPa
lineas_de_corriente-06h-850hPa
lineas_de_corriente-18h-850hPa
lineas_de_corriente-24h-850hPa
lineas_de_corriente-30h-850hPa
lineas_de_corriente-36h-850hPa
lineas_de_corriente-06h-925hPa
lineas_de_corriente-12h-925hPa
lineas_de_corriente-18h-925hPa
lineas_de_corriente-24h-925hPa
lineas_de_corriente-30h-925hPa
lineas_de_corriente-36h-925hPa
viento-06h-250hPa
viento-12h-250hPa
viento-18h-250hPa
viento-24h-250hPa
viento-30h-250hPa

viento-36h-250hPa
viento-06h-500hPa
viento-12h-500hPa
viento-18h-500hPa
viento-24h-500hPa
viento-30h-500hPa
viento-36h-500hPa
viento-06h-850hPa
viento-12h-850hPa
viento-18h-850hPa
viento-24h-850hPa
viento-30h-850hPa
viento-36h-850hPa
viento-06h-925hPa
viento-12h-925hPa
viento-18h-925hPa
viento-24h-925hPa
viento-30h-925hPa
viento-36h-925hPa

- Drought Monitor - North America - English / Spanish / French:

North American Drought Monitor

January 31, 2014

Released: Tuesday, February 18, 2014

<http://www.ncdc.noaa.gov/nadm.html>

Analysts:
Canada - Trevor Hadwen
Patrick Bell
Mexico - Reynaldo Pascual
Adelina Albanil
U.S.A. - Anthony Artusa
Richard Heim*

(* Responsible for collecting analysts' input & assembling the NA-DM map)

Intensity
D0 Abnormally Dry
D1 Drought - Moderate
D2 Drought - Severe
D3 Drought - Extreme
D4 Drought - Exceptional

Drought Impact Types:
~ Delineates dominant impacts
S = Short-Term, typically <6 months
(e.g. agriculture, grasslands)
L = Long-Term, typically >6 months
(e.g. hydrology, ecology)



USDA



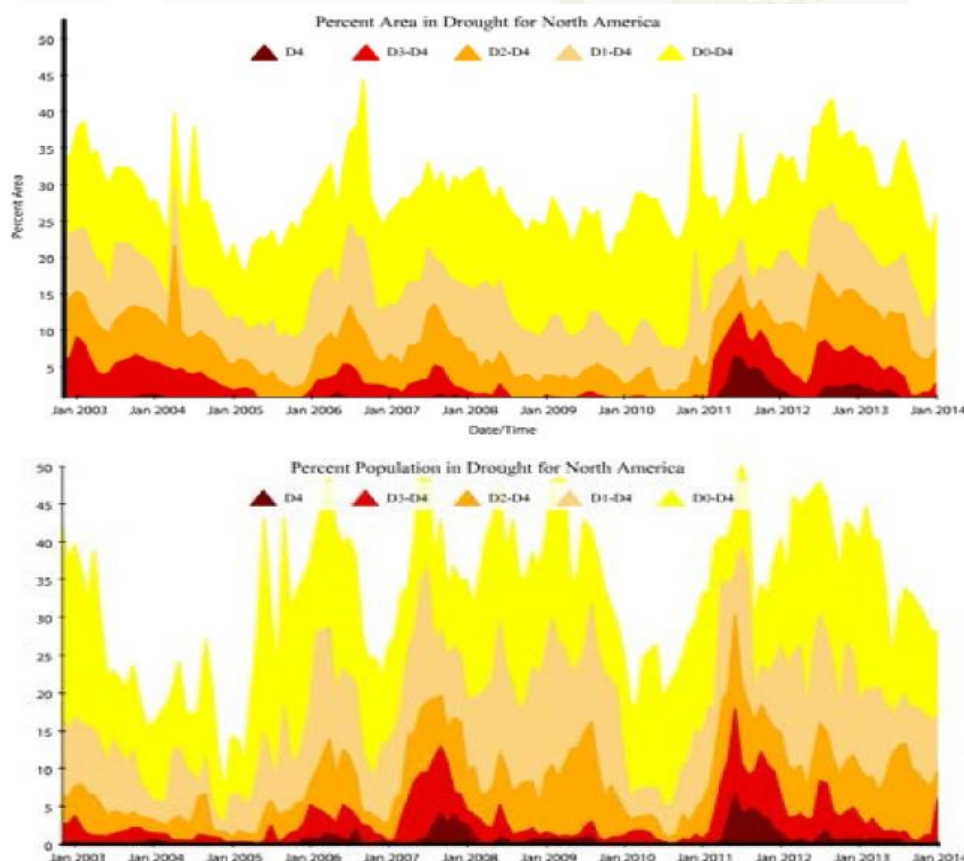
CONAGUA



Regions in northern Canada may not be as accurate as other regions due to limited information.

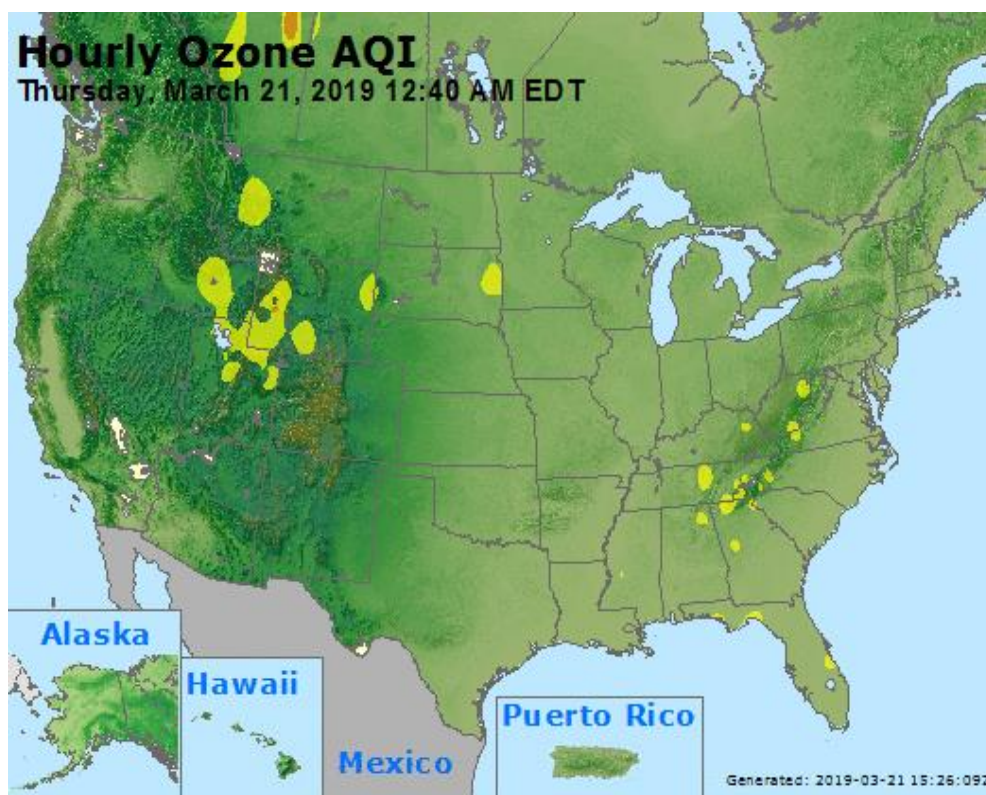
Data Provider: NADM
Folder: NADM
Formats: JPEG and PDF
Average Sizes:
600 kB (JPEG) / 1.5 MB (PDF)
Frequency: Monthly
Naming Conventions:
nadm-YYYYMM
nadm-YYYYMM-sp
nadm-YYYYMM-fr

- Drought Monitor Monthly Report - North America - English / Spanish / French:



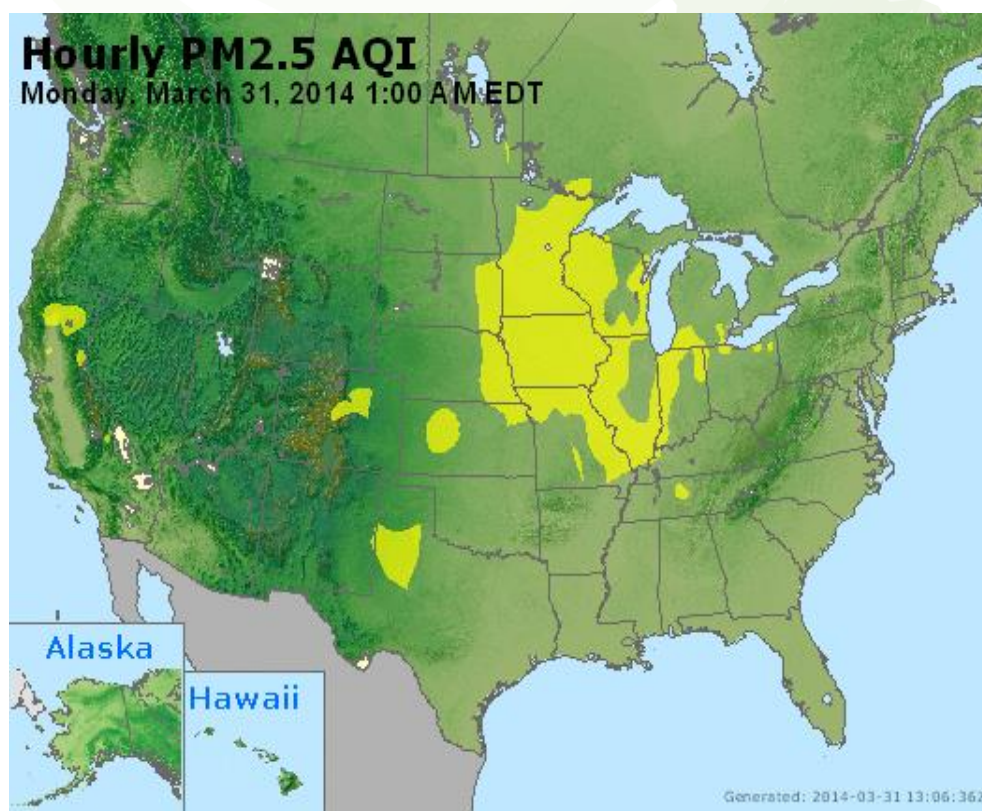
Data Provider: NADM
Folder: NADM
Format: PDF
Average Size: 118 kB
Frequency: Monthly
Naming Conventions:
nadm-narr-YYYYMM
nadm-narr-YYYYMM-sp
nadm-narr-YYYYMM-fr

- Real Time Ozone Animated - North America:



Data Provider: USEPA
Folder: USEPA
Format: GIF
Average Size: 165 kB
Frequency: 60 minutes
Max n° of files a day: 24
Naming Convention:
8a-super

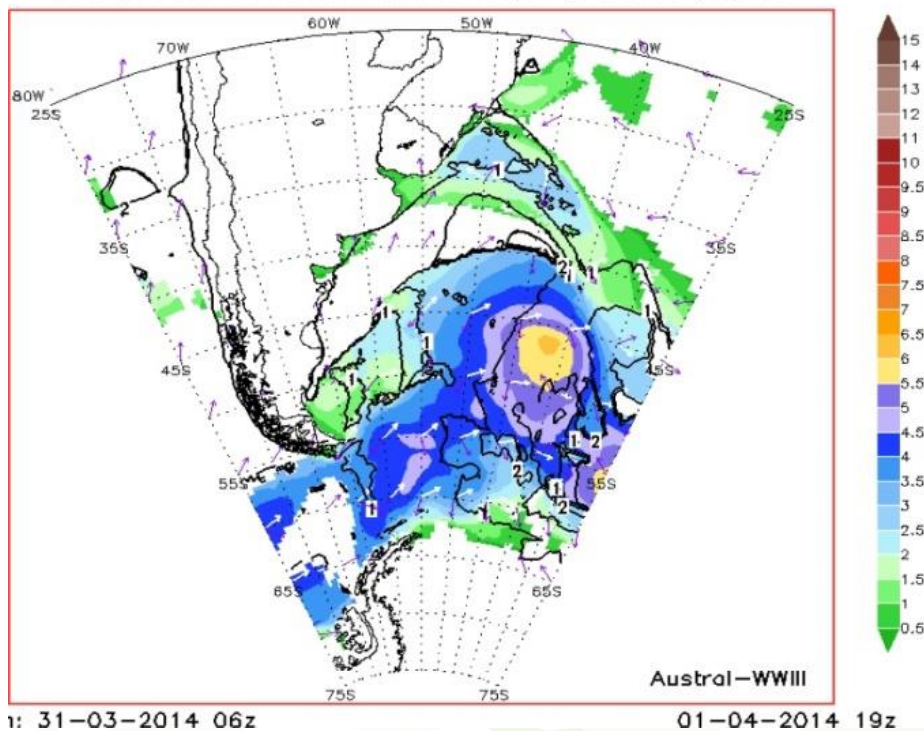
- Real Time Particulate Matter 2.5 Micrometers Animated - North America:



Data Provider: USEPA
Folder: USEPA
Format: GIF
Average Size: 45 kB
Frequency: 15 minutes
Max n° of files a day: 96
Naming Convention:
pm25-24a-super

- Average Height and Direction of Waves - Southern South Americas:**

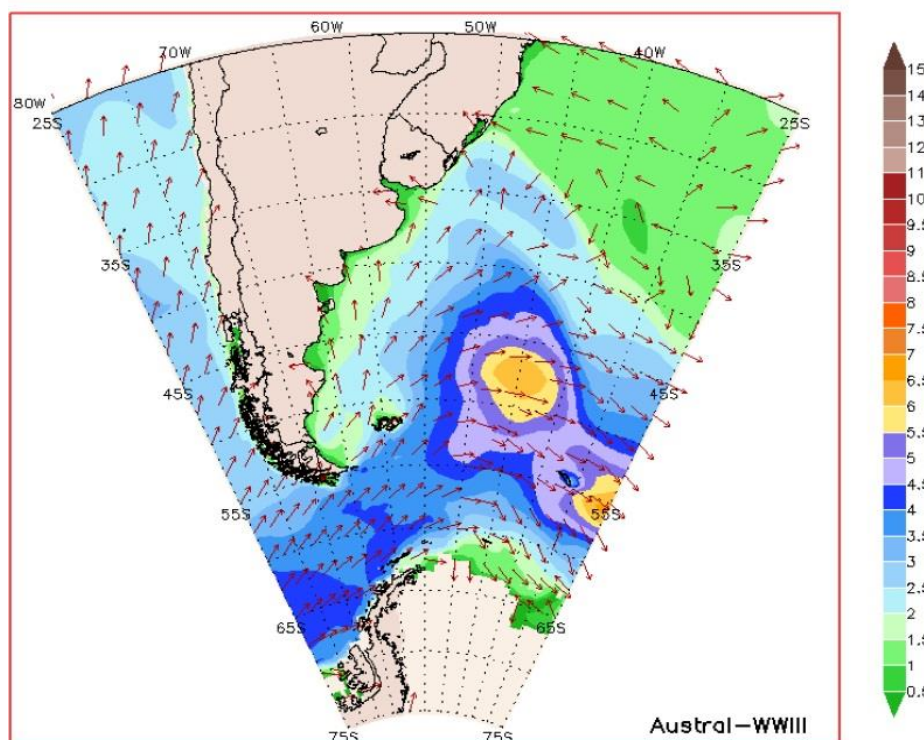
ALTURA Y DIRECCION MEDIA DE OLAS
mar de viento: sombreado en colores y flechas blancas
principal mar de fondo: isolineas negras y flechas purpura



Data Provider: CONAE
Folder: CONAE
Formats: PDF and Text (compressed)
Average Size: 3.18 MB
Frequency: 360 minutes
Max n° of files a day: 4 per product
Naming Conventions: olas_austral.zip

- Significant Wave Height and Direction of Maximum:**

ALTURA DE LA OLA SIGNIFICATIVA Y DIRECCIÓN DEL MAXIMO



Data Provider: CONAE
Folder: CONAE
Formats: PDF and Text (compressed)
Average Size: 3.18 MB
Frequency: 360 minutes
Max n° of files a day: 4 per product
Naming Conventions: olas_austral.zip

- **ISCS Products (Multiple Channels): National Oceanic and Atmospheric Administration - National Weather Service - USA) / “International Services and Communication Systems” (ISCS) Activity**

Channel: ISCS-ADMIN

Content: Meteorological Notifications, Text Message Notices and Warning Related Notices

Format: TXT

Average Size per product: 8.23 kB / 0.0080 MB

Frequency: 1 file every minute

Max n° of files a day: 798

Naming Convention:

T1T2 A1A2ii_CCCC_ddhhmm[_BBB]

Where:

T1T2 A1A2ii = WMO data designators.

CCCC = International four-letter location indicator of the station or center originating or compiling the bulletin

yyyy = Year

dd = Numeric day of the month

hh = Hour (00-23)

mm = Minute (00-59)

BBB = Indicator of an addition, a correction or an amendment to an existing bulletin

“_BBB” appears only when the product contains the addition, correction or amendment

T1T2:

- **NO** Notices - METNO/WIFMA
- **NT** Notices - TEST MSG [System related]
- **NW** Notices - Warning related and/or cancellation

Channel: ISCS-ANLZ-CLIMATE

Content: Weather Summaries, Analyses and Climatic Data

Format: TXT

Average Size per image: 0.36 kB / 0.0004 MB

Frequency: 1 file every 11.07 minutes

Max n° of files a day: 130

Naming Convention:

T1T2 A1A2ii_CCCC_ddhhmm[_BBB]

Where:

T1T2 A1A2ii = WMO data designators.

CCCC = International four-letter location indicator of the station or center originating or compiling the bulletin

yyyy = Year

dd = Numeric day of the month

hh = Hour (00-23)

mm = Minute (00-59)

BBB = Indicator of an addition, a correction or an amendment to an existing bulletin;

“_BBB” appears only when the product contains the addition, correction or amendment

T1T2:

- **AB** Weather Summaries
- **AC** Analysis - Cyclone
- **AH** Analysis - Thickness
- **AS** Analysis - Surface
- **AW** Analysis - Weather summary
- **AX** Analysis - Miscellaneous
- **BM** ?????
- **CD** ?????
- **CS** Climatic data - Monthly means (surface)
- **CU** Climatic data - Monthly means (upper air)
- **CX** ?????



Python Script Available

Channel: ISCS-BUFR

Content: Atmospheric and Oceanographic Observations and Forecasts

Format: Binary Universal Form for the Representation of meteorological data (BUFR) format [FM 94 BUFR]

Average Size per image: 4.43 kB / 0.0043 MB

Frequency: 1 file every 2.33 minutes

Max n° of files a day: 618

Naming Convention:

T1T2 A1A2ii_CCCC_ddhhmm[_BBB]

Where:

T1T2 A1A2ii = WMO data designators.

CCCC = International four-letter location indicator of the station or center originating or compiling the bulletin

yyyy = Year

dd = Numeric day of the month

hh = Hour (00-23)

mm = Minute (00-59)

BBB = Indicator of an addition, a correction or an amendment to an existing bulletin;

“_BBB” appears only when the product contains the addition, correction or amendment

T1T2:

- **IM** ?????
- **IO** Binary observation - BUFR - Oceanographic/Limnographic (water properties)
- **IU** Binary observation - BUFR - Upper air
- **JU** Forecast Information - BUFR - Upper air

Channel: ISCS-FCAST

Content: Forecast Products

Format: TXT

Average Size per image: 0.51kB / 0.0005 MB

Frequency: 1 file every 0.2 minutes

Max n° of files a day: 7044

Naming Convention:

T1T2 A1A2ii_CCCC_ddhhmm[_BBB]

Where:

T1T2 A1A2ii = WMO data designators.

CCCC = International four-letter location indicator of the station or center originating or compiling the bulletin

yyyy = Year

dd = Numeric day of the month

hh = Hour (00-23)

mm = Minute (00-59)

BBB = Indicator of an addition, a correction or an amendment to an existing bulletin;

“_BBB” appears only when the product contains the addition, correction or amendment

T1T2:

- **FA** Forecast - Aviation area/GAMET/advisories
- **FB** Forecast - Upper winds & temperatures
- **FC** Forecast - Aerodrome (VT > 12 hours)
- **FK** Forecast - Tropical cyclone advisories
- **FO** Forecast - Guidance
- **FP** Forecast - Public
- **FQ** Forecast - Other shipping
- **FR** Forecast - Aviation route
- **FS** Forecast - Surface
- **FT** Forecast - Aerodrome (VT > 12 hours)
- **FU** Forecast - Upper air
- **FV** Forecast - Volcanic ash advisories
- **FX** Forecast - Miscellaneous
- **FZ** Forecast - Shipping area



Python Script Available

Channel: ISCS-GRIB1

Content: GRIB1 Format Model Output

Format: GRIdDED Binary edition 1 (GRIB1)

Average Size per image: 4.47 kB / 0.0044 MB

Frequency: 1 file every 0.062 minutes

Max n° of files a day: 23,254

Naming Convention:

yyyymmdd_hhmmfzz[z]

Where:

yyyy = Year

mm = Month

dd = Numeric day of the month

hh = Hour (00-23)

mm = Minute (00-59)

For GRIB1, zz[z] is the forecast hours of: 00, 06, 12, 18, 24, 30, 36, 42, 48, 60, 72, 84, 96, 108, 120, 132, 144, and 168.

T1T2:

- **HE** Grid point information (GRIB) - Precipitation
- **HG** Grid point information (GRIB) - Divergence
- **HH** Grid point information (GRIB) - Height
- **HO** Grid point information (GRIB) - Vertical velocity
- **HP** Grid point information (GRIB) - Pressure
- **HR** Grid point information (GRIB) - Relative humidity
- **HT** Grid point information (GRIB) - Temperature
- **HU** Grid point information (GRIB) - Eastward wind component
- **HV** Grid point information (GRIB) - Northward wind component

Channel: ISCS-GRIB2

Content: GRIB2 Format Model Output

Format: GRIdDED Binary Edition 2 (GRIB2)

Average Size per image: 59.00 kB / 0.0576 MB

Frequency: 1 file every 0.145 minutes

Max n° of files a day: 9,948

Resolution: 1 degree

Naming Convention:

YYYYMMDD_tttt"f"nn".grib2.rmtn"

Where:

YYYYMMDD = Year, Month and Day of the NCEP model run

tttt = time of the model run (0000, 0600, 1200 or 1800)

nn = forecast hour

Example:20150407_0600f00.grib2.rmtn

T1T2:

- **YH** GRIB regional use - Height
- **YR** GRIB regional use - Relative humidity
- **YT** GRIB regional use - Temperature
- **YU** GRIB regional use - Eastward wind component
- **YV** GRIB regional use - Northward wind component

Channel: ISCS-PIC

Content: Multiple graphic format products.

Format: BUFR, Binary, ?????

Average Size per image: 55.76 kB / 0.0545 MB

Frequency: 1file every 1.97 minutes

Max n° of files a day: 728

Naming Convention:

T1T2 A1A2ii_CCCC_ddhhmm[_BBB]

Where:

T1T2 A1A2ii = WMO data designators.

CCCC = International four-letter location indicator of the station or center originating or compiling the bulletin

yyyy = Year

dd = Numeric day of the month

hh = Hour (00-23)

mm = Minute (00-59)

BBB = Indicator of an addition, a correction or an amendment to an existing bulletin;

“_BBB” appears only when the product contains the addition, correction or amendment

T1T2:

- **PA** Pictorial information(BUFR/binary) - Radar data
- **PB** Pictorial information(binary) - Cloud
- **PC** Pictorial information(binary) - Clear Air turbulence
- **PF** Pictorial information(binary) - Aerological diagrams (ash clouds)
- **PG** Pictorial information(binary) - Significant weather
- **PH** Pictorial information(binary) - Height
- **PJ** Pictorial information(binary) - Wave height + combinations
- **PM** Pictorial information(binary) - For national use
- **PP** Pictorial information(binary) - Pressure
- **PT** Pictorial information(binary) - Temperature
- **PU** Pictorial information(binary) - Eastward wind component
- **PV** Pictorial information(binary) - Northward wind component
- **PW** Pictorial information(binary) - Wind
- **PY** Pictorial information(binary) - Observational plot chart
- **QA** Pictorial information regional - Radar data
- **QH** Pictorial information regional - Height
- **QP** Pictorial information regional - Pressure
- **QU** Pictorial information regional - Eastward wind component
- **QW** Pictorial information regional – Wind

Channel: ISCS-SAT

Content: Multiple graphic format products.

Format: TXT

Average Size per image: 59.04 kB / 0.0577 MB

Frequency: 1 file every 3.82 minutes

Max n° of files a day: 376

Naming Convention:

T1T2 A1A2ii_CCCC_ddhhmm[_BBB]

Where:

T1T2 A1A2ii = WMO data designators.

CCCC = International four-letter location indicator of the station or center originating or compiling the bulletin

yyyy = Year

dd = Numeric day of the month

hh = Hour (00-23)

mm = Minute (00-59)

BBB = Indicator of an addition, a correction or an amendment to an existing bulletin;

“_BBB” appears only when the product contains the addition, correction or amendment

T1T2:

- **FA** Forecast - Aviation area/GAMET/advisories
- **FB** Forecast - Upper winds & temperatures
- **FC** Forecast - Aerodrome (VT > 12 hours)
- **FK** Forecast - Tropical cyclone advisories
- **FO** Forecast - Guidance
- **FP** Forecast - Public
- **FQ** Forecast - Other shipping
- **FR** Forecast - Aviation route
- **FS** Forecast - Surface
- **FT** Forecast - Aerodrome (VT > 12 hours)
- **FU** Forecast - Upper air
- **FV** Forecast - Volcanic ash advisories
- **FX** Forecast - Miscellaneous
- **FZ** Forecast - Shipping area

Channel: ISCS-SURFACE

Content: Observations land and oceanographic

Format: TXT

Average Size per image: 1.00 kB / 0.0010 MB

Frequency: 1 file every 0.036 minutes

Max n° of files a day: 42,157

Naming Convention:

T1T2 A1A2ii_CCCC_ddhhmm[_BBB]

Where:

T1T2 A1A2ii = WMO data designators.

CCCC = International four-letter location indicator of the station or center originating or compiling the bulletin

yyyy = Year

dd = Numeric day of the month

hh = Hour (00-23)

mm = Minute (00-59)

BBB = Indicator of an addition, a correction or an amendment to an existing bulletin;

“_BBB” appears only when the product contains the addition, correction or amendment

T1T2:

- **SA** Surface data - Aviation routine reports
- **SD** Surface data - Radar reports (parts A & B)
- **SE** Surface data - Seismic data
- **SI** Surface data - Intermediate synoptic hour
- **SM** Surface data - Main synoptic hour
- **SN** Surface data - Non-standard synoptic hour
- **SO** Surface data - Oceanographic data
- **SP** Surface data - Special aviation weather reports
- **SS** Surface data - Drifting buoy reports
- **SX** Surface data – Miscellaneous



Python Script Available

Channel: ISCS-UPPER AIR

Content: Observations Upper air; atmosphere

Format: TXT

Average Size per image: 0.27 / 0.0003 MB

Frequency: 1 file every 0.14 minutes

Max n° of files a day: 10,417

Naming Convention:

T1T2 A1A2ii_CCCC_ddhhmm[_BBB]

Where:

T1T2 A1A2ii = WMO data designators.

CCCC = International four-letter location indicator of the station or center originating or compiling the bulletin

yyyy = Year

dd = Numeric day of the month

hh = Hour (00-23)

mm = Minute (00-59)

BBB = Indicator of an addition, a correction or an amendment to an existing bulletin;

“_BBB” appears only when the product contains the addition, correction or amendment

T1T2:

- **UA** Upper-air data - Aircraft reports
- **UD** Upper-air data - Aircraft reports
- **UE** Upper-air data - Upper-level pressure, temperature, humidity & wind (Part D)
- **UF** Upper-air data - Upper-level pressure, temperature, humidity & wind (Parts C & D)
- **UG** Upper-air data - Upper-wind (Part B)
- **UH** Upper-air data - Upper-wind (Part C)
- **UJ** Upper air data – Radiosonde Data- US
- **UK** Upper-air data - Upper-level pressure, temperature, humidity & wind (Part B)
- **UL** Upper-air data - Upper-level pressure, temperature, humidity & wind (Part C)
- **UM** Upper-air data - Upper-level pressure, temperature, humidity & wind (Parts A & B)
- **UP** Upper-air data - Upper-wind (Part A)
- **UQ** Upper-air data - Upper-wind (Part D)
- **UR** Upper-air data - Aircraft reports
- **US** Upper-air data - Upper-level pressure, temperature, humidity & wind (Part A)
- **UX** Upper-air data - Miscellaneous
- **UZ** Upper-air data - Upper-level pressure, temperature, humidity & wind from a sonde released by carrier balloon or aircraft (Parts A,B,C,D)

Channel: ISCS-WARNING

Content: Warning, AIRMETs and SIGMETs

Format: TXT

Average Size per image: 0.52 kB / 0.0005 MB

Frequency: 1 file every 1.74 minutes

Max n° of files a day: 823

Naming Convention:

T1T2 A1A2ii_CCCC_ddhhmm[_BBB]

Where:

T1T2 A1A2ii = WMO data designators.

CCCC = International four-letter location indicator of the station or center originating or compiling the bulletin

yyyy = Year

dd = Numeric day of the month

hh = Hour (00-23)

mm = Minute (00-59)

BBB = Indicator of an addition, a correction or an amendment to an existing bulletin;

“_BBB” appears only when the product contains the addition, correction or amendment

T1T2:

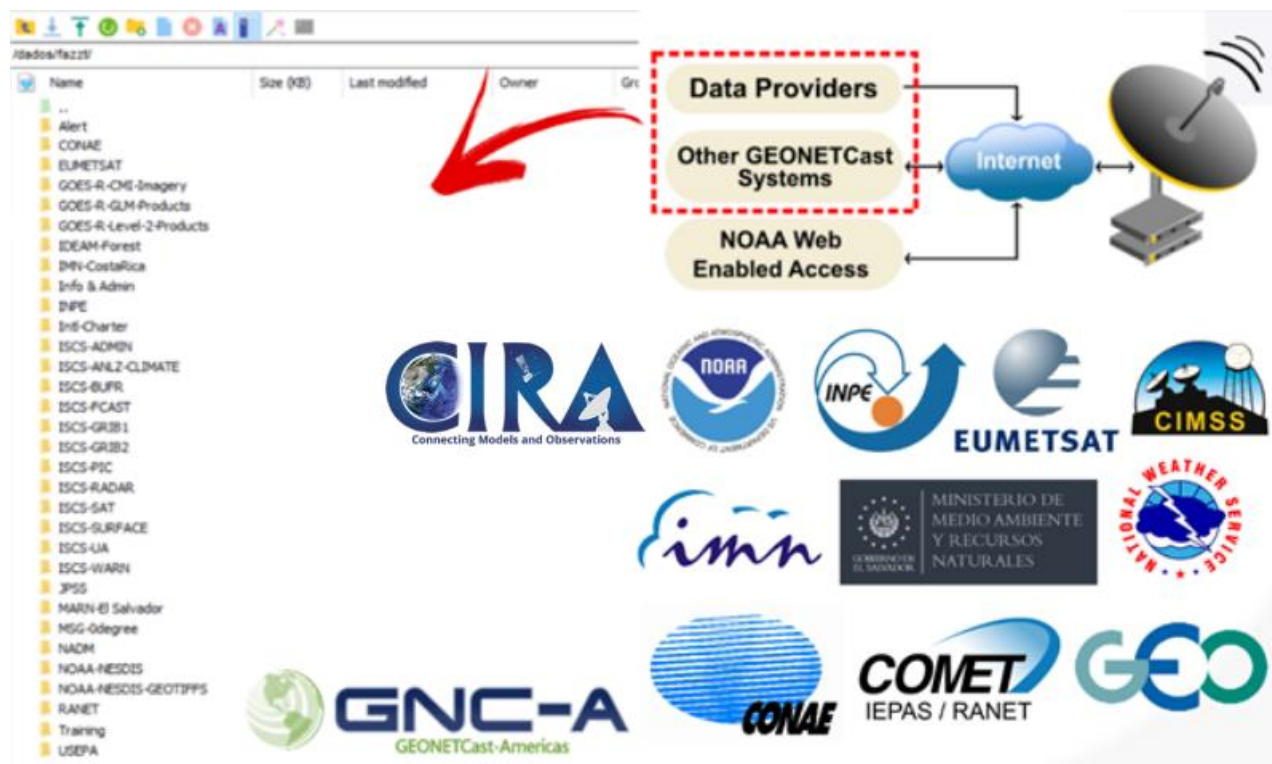
- **SE** Surface data - Seismic data
- **NW** Notices - Warning related and/or cancellation
- **WA** Warnings - Airmet
- **WB**
- **WC** Warnings - Tropical cyclone (SIGMET)
- **WD**
- **WE** Warnings - Tsunami
- **WF** Warnings - Tornado
- **WG** Warnings - Hydrological/river flood
- **WH** Warnings - Marine/coastal flood
- **WN**
- **WO** Warnings - Other
- **WP**
- **WR** Warnings – Flash flood
- **WS** Warnings - SIGMET
- **WT** Warnings - Tropical cyclone (typhoon/hurricane)
- **WU** Warnings - Severe thunderstorm
- **WV** Warnings - Volcanic ash clouds (SIGMET)
- **WW** Warnings - Warnings & weather summary
- **WX**
- **WY**



Python Script Available

8 THE DATA PROVIDERS

The image below shows the current GEONETCast-Americas Data Providers, which in your station will be represented in **data channels**, or **folders in the ingestion directory**. The ingestion directory location may be configured by users in the **FAZZT Software**.



The current list of providers is found below:

- **CIRA**: Cooperative Institute for Research in the Atmosphere (USA)
- **CIMSS**: Cooperative Institute for Meteorological Satellite Studies (USA)
- **CONAE**: National Space Activities Commission (Argentina)
- **EUMETSAT**: European Organisation for the Exploitation of Meteorological Satellites
- **INPE**: National Institute for Space Research (Brazil)
- **IMN**: National Meteorological Institute (Costa Rica)
- **MARN**: Ministry of Environment and Natural Resources (El Salvador)
- **NOAA-NESDIS**: National Oceanic and Atmospheric Administration (USA)
- **NWS**: National Weather Service (USA)
- **RANET**: Radio and Internet for the Communication of Hydro-Meteorological and Climate Related Information (USA)
- **USEPA**: United States Environmental Protection Agency

