Mapped out final product

V1.1 – removed orbit specific data

Guide

Underlined words indicate a group.

Not-underlined words indicate data.

The position within the sub lists indicates the organization of the groups.

Green highlighted data indicates it is of the type GeoTraj (has coordinates).

Pink highlighted data indicates it is of the Geo2D type (has coordinates).

Yellow highlighted data indicate it is of the 1D type.

Blue highlighted data indicate it is of the 2D type.

Without being highlighted indicates the type showed a - . This seems to be a scalar, a chart or unknown (looks like a description). Assume a scalar unless otherwise noted.

Acronyms – a chart of acronyms

Fire

* MODIS/Aqua\_Thermal\_Anomalies/Fire\_5-Min\_L2\_Swath\_1km\_V061
  + CMG night
  + Fire mask
  + FP AdjCloud – number of adjacent cloud pixels
  + FP AdjWater – number of adjacent water pixels
  + FP confidence – detection confidence
  + FP land – land pixel flag
  + FP latitude – latitude of fire pixel
  + FP line – granule line of fire pixel
  + FP longitude – longitude of fire pixel
  + FP MAD DT – background brightness temperature difference mean absolute deviation
  + FP MAD R2 – background channel 2 reflectance mean absolute deviation
  + FP MAD T21 – background channel 21/22 brightness temperature mean absolute deviation
  + FP MAD T31 – background channel 31 brightness temperature mean absolute deviation
  + FP MeanDT – mean background brightness temperature difference
  + FP MeanR2 – background channel 2 reflectance
  + FP MeanT21 – channel 21/22 brightness temperature of background
  + FP MeanT31 – channel 31 brightness temperature of background
  + FP NumValid – number of valid background pixels
  + FP power – fire radiative power
  + FP R2 – channel 2 reflectance of fire pixel
  + FP RelAzAng – relative azimuth angle
  + FP sample – granule sample of fire pixel
  + FP SolZenAng – solar zenith angle
  + FP T21 – channel 21/22 brightness temperature of fire pixel
  + FP T31 – channel 31 brightness temperature of fire pixel
  + FP ViewZenAng – view zenith angle
  + FP WinSize – background window size
* MODIS/Terra\_Thermal\_Anomalies/Fire\_5-Min\_L2\_Swath\_1km\_V061
  + CMG night
  + Fire mask
  + FP AdjCloud – number of adjacent cloud pixels
  + FP AdjWater – number of adjacent water pixels
  + FP confidence – detection confidence
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  + FP SolZenAng – solar zenith angle
  + FP T21 – channel 21/22 brightness temperature of fire pixel
  + FP T31 – channel 31 brightness temperature of fire pixel
  + FP ViewZenAng – view zenith angle
  + FP WinSize – background window size

Lightning

* Non-Quality\_Controlled\_Lightning\_Imaging\_Sensor\_(LIS)\_on\_International\_Space\_Station\_(ISS)\_Science\_Data\_V2
  + one second
    - Alert summary – alert summary flag
    - Event count – raw event count and counts surviving filters at each processing stage
    - External alert – bit masked status of external factors
    - Instrument alert – bit masked status of instruments
    - Platform alert – bit masked status of platform
    - Position vector – location of platform in Earth Centered Rotational coordinates
    - Solar vector - unit vector from center of earth to sun in ECR coordinates
    - Thresholds - values of the instrument threshold settings for each 256 count background interval
    - Transform matrix – components of transform from pixel plane-boresight coordinates to ECR coordinates of boresight and pixel plane
    - Velocity vector - velocity of platform in ECR coordinates
  + Point
    - Lightning
      * Area
        + Address – area record number
        + Alert flag - bit masked status of instrument, platform, external factors and processing algorithms
        + Approx. threshold - estimated value of 8-bit threshold for the area determined from background level or solar zenith angle
        + Child address – address of first flash in a sequential list
        + Child count – number of flashes in area
        + Cluster index – area clustering probability, pixel density metric; higher numbers indicate area is less likely to be noise
        + Delta time - time between first and last event that compose the area
        + Density index – lightning activity, spatial density metric; higher if area geolocated in a region of high lightning activity
        + Footprint – unique area extent
        + Grandchild count – number of groups in area
        + Greatgrandchild count – number of events in area
        + Grouping sequence – area time order
        + Grouping status – end status of the area
        + Location - lat/lon radiance-weighted centroid
        + Net radiance – total radiance of the area
        + Noise index – signal to signal plus noise ratio
        + Oblong index - metric indicating how oblong the area is
        + Observe time - duration of observation of the region where the area occurred
        + Parent address – area parent record number
        + TAI93 time - TAI93 time of 1st event in area
      * Event
        + Address – event record number
        + Alert flag - bit masked status of instrument, platform, external factors and processing algorithms
        + Amplitude - uncalibrated optical amplitude reported by instrument (a 7-bit digital count)
        + Approx. threshold - estimated value of 8-bit threshold for the event; from bg level or solar zenith angle
        + Bg radiance - background radiance associated with pixel at time of event
        + Bg value - level of background illumination (16-bit) at time of event
        + Bg value flag - event background illumination flag
        + Cluster index - pixel density metric; higher numbers indicate event less likely to be noise
        + Density index - spatial density metric; higher if event geolocated in a region of high lightning activity
        + Footprint – unique area extent
        + Glint index - angle between line of sight vector and direct solar reflection vector
        + Grouping sequence - time sequence of event used when grouping algorithm is applied
        + Location
        + Noise index - signal-to-signal plus noise ratio
        + Observe time - duration of observation of the region where the event occurred
        + Parent address - event parent record number
        + Radiance – calibrated radiance
        + Sza index – event solar zenith angle
        + TAI93 time - TAI93 time of event
        + X pixel – CCD pixel column
        + Y pixel – CCD pixel row
      * Flash
        + Address – flash record number
        + Alert flag - bit masked status of instrument, platform, external factors and processing algorithms
        + Approx. threshold - estimated value of 8-bit threshold for the flash determined from background level or solar zenith angle
        + Child address - address of 1st group in a sequential list
        + Child count - number of groups in flash
        + Cluster index - pixel density metric; higher numbers indicate flash is less likely to be noise
        + Delta time - time between first and last group that compose the flash
        + Density index - spatial density metric; higher if flash geolocated in a region of high lightning activity
        + Footprint - unique flash extent
        + Glint index - flash solar glint cosine
        + Grandchild count - number of events in flash
        + Grouping sequence - time sequence of flash used when grouping algorithm is applied
        + Grouping status – end status of the flash
        + Location
        + Noise index - signal-to-signal plus noise ratio
        + Oblong index - metric indicating how oblong the flash is
        + Observe time - duration of observation of the region where the flash occurred
        + Parent address - flash parent record number
        + Radiance - sum of event radiances composing this flash
        + TAI93 time - TAI93 time of 1st event in flash
      * Group
        + Address – group record number
        + Alert flag - bit masked status of instrument, platform, external factors and processing algorithms
        + Approx. threshold - estimated value of 8-bit threshold for the group determined from background level or solar zenith angle
        + Child address - address of 1st event in a sequential list
        + Child count - number of events in group
        + Cluster index - pixel density metric; higher numbers indicate group is less likely to be noise
        + Density index - spatial density metric; higher if group geolocated in a region of high lightning activity
        + Footprint – unique group extent
        + Glint index - group solar glint cosine
        + Grouping sequence - time sequence of group used when grouping algorithm is applied
        + Grouping status – end status of the group
        + Location
        + Noise index - signal-to-signal plus noise ratio
        + Oblong index - metric indicating how oblong the group is
        + Observe time - length of observation of the region where the group occurred (viewtime approximation at group centroid)
        + Parent address - group parent record number
        + Radiance - sum of event radiances composing this group
        + TAI93 time - TAI93 time of all events in group
    - Point summary
      * Area count – total number of areas in the file
      * Event count – total number of events in the file
      * Flash count – total number of flashes in the file
      * Group count – total number of groups in the file
      * Vt count – total number of viewtimes in the file
    - Viewtime
      * Alert flag - reflects status of instrument, platform, external factors and processing algorithms
      * Approx. threshold - threshold of instrument corresponding with grid cell position, proxied from solar zenith angle at a time halfway between start and end time
      * Effective obs - time of observation of the grid cell, adjusted by the percentage of area in the grid cell within the FOV
      * Location
      * TAI93 end - TAI93 whole second when location was last within FOV
      * TAI93 start - TAI93 whole second when location was first within FOV

Nitrogen\_Dioxide

* OMI/Aura\_NO2\_Tropospheric\_Stratospheric\_&\_Total\_Columns\_MINDS\_1-Orbit\_L2\_Swath\_13\_km\_x\_24\_km\_V1\_(OMI\_MINDS\_NO2)\_at\_GES\_DISC
  + ANCILLARY DATA
    - Cloud Fraction – effective cloud fraction
    - Cloud Fraction Std – precision
    - Cloud Pressure – cloud pressure
    - Cloud Pressure Std – precision
    - Cloud Radiance Fraction – cloud radiance fraction
    - Scene LER – scene Lambertian Equivalent Reflectivity
    - Scene Pressure – scene pressure
    - Terrain Height – terrain height
    - Terrain Pressure – terrain pressure
    - Terrain Reflectivity – terrain reflectivity
    - Tropopause Pressure – tropopause pressure
    - X Track Quality Flags – Cross-track quality flags
  + GEOLOCATION DATA
    - FoV75 Area – mean area for 75% field of view pixels on the WGS-85 Ellipsoid
    - FoV75 Corner Latitude – corner latitudes for 75% fov pixels on the WGS-85 Ellipsoid (CCW relative to flight direction: LL,LR,UR,UL)
    - FoV75 Corner Longitude – corner longitudes for 75% fov pixels on the WGS-85 Ellipsoid (CCW relative to flight direction: LL,LR,UR,UL)
    - Ground Pixel Quality Flags
    - Latitude
    - Longitude
    - Relative Azimuth Angle – sun + 180 – view
    - Scattering Weight Pressure
    - Seconds In Day – seconds after UTC midnight
    - Solar Azimuth Angle
    - Solar Zenith Angle
    - Viewing Azimuth Angle
    - Viewing Zenith Angle
  + nCorners – ground pixel corner number
  + nLevels – pressure level number
  + nTimes – along track line number
  + nXtrack – cross track position number
  + SCIENCE DATA
    - Amf Strat – stratospheric Air Mass Factor
    - Amf Strat Std – precision
    - Amf Trop – tropospheric amf
    - Amf Trop Std – precision
    - Column Amount NO2 – NO2 vertical column density
    - Column Amount NO2 Std – precision
    - Column Amount NO2 Strat – NO2 stratospheric column density
    - Column Amount NO2 Strat Std – precision
    - Column Amount NO2 Trop – NO2 Tropospheric column density
    - Column Amount NO2 Trop Std – precision
    - Scattering Weight – scattering weight profile
    - Slant Column Amount NO2 – NO2 slant column density
    - Slant Column Amount NO2 Std – precision
    - Vcd Quality Flags – vertical column density quality flags

Power\_Outages

* VIIRS/NPP\_Gap-Filled\_Lunar\_BRDF-Adjusted\_Nighttime\_Lights\_Daily\_L3\_Global\_500m\_Linear\_Lat\_Lon\_Grid
  + HDFEOS
    - \_HDFEOS\_CRS
    - Data Fields
      * DNB BRDF Corrected NTL – bidirectional reflectance distribution function corrected day-night band radiance
      * DNB Lunar Irradiance – lunar irradiance
      * Gap Filled DNB BRDF Corrected NTL – Gap filled BRDF corrected DNB radiance
      * Latest High Quality Retrieval – latest high quality BRDF corrected DNB radiance retrieval
      * Mandatory Quality Flag – mandatory quality flag of BRDF corrected DNB radiance
      * QF Cloud Mask – Cloud mask status
      * Snow Flag – snow/ice status