This dataset provides daily mosaicked VIIRS Vegetation Index and Surface Reflectance (VI-SR) data over the CONUS region**,** aggregated from the tile-based VI-SR intermediate product that serves as input to the current NOAA operational VIIRS vegetation index product (https://www.ospo.noaa.gov/products/land/vi/).

- **Spatial coverage:** CONUS bounding box = [-125.0E, 24.0N, -66.0E, 50.0N]
- **Spatial resolution:** 0.003°
- **Original pixel resolution in the granule data:**
  - 375 m (I1, I2 bands)
  - 750 m (M3 band)
- **Temporal resolution:** Daily
- **Latency:** < 1 day from observation
- **Processing notes:** Data are subsetted and mosaicked from the VI-SR intermediate product used operationally at NOAA. For algorithmic details, please refer to the *VIIRS VI Algorithm Theoretical Basis Document Version 4.1*.

The data fields and quality flag information contained in this data file are described in Table 1 and Table 2.

Table 1. Data fields of the VIIRS VI-SR product, CONUS subset

Date Name	Data Description	Data Type	Dimension	Fill value	Scale	Offset	Data Range
NDVI_TOC	Top of Canopy NDVI	16-bit Integer	8667 x 19667	-32768	0.0001	0	[-1, 1]
EVI_TOC	Top of Canopy EVI	16-bit Integer	8667 x 19667	-32768	0.0001	0	[-1, 1]
I1_TOC	VIIRS Band I1 surface reflectance	16-bit Integer	8667 x 19667	-32768	0.0001	0	[0, 1]
I2_TOC	VIIRS Band I2 surface reflectance	16-bit Integer	8667 x 19667	-32768	0.0001	0	[0, 1]
M3_TOC	VIIRS Band M3 surface reflectance	16-bit Integer	8667 x 19667	-32768	0.0001	0	[0, 1]
SZA	Solar Zenith Angle	16-bit Integer	8667 x 19667	-32768	0.01	0	[0,90]
VZA	Viewing Zenith Angle	16-bit Integer	8667 x 19667	-32768	0.01	0	[0,90]
RAA	Relative Azimuth Angle	16-bit Integer	8667 x 19667	-32768	0.01	0	[0,180]
QF1	Quality Flag Byte 1 (See Table 2)	8-bit unsigned integer	8667 x 19667	N/A	1	0	[0, 255]
QF2	Quality Flag Byte 2 (See Table 2)	8-bit unsigned integer	8667 x 19667	N/A	1	0	[0, 255]

QF3	Quality Flag Byte 3 (See Table 2)	8-bit unsigned integer	8667 x 19667	N/A	1	0	[0, 255]
QF4	Quality Flag Byte 4 (See Table 2)	8-bit unsigned integer	8667 x 19667	N/A	1	0	[0, 255]
Latitude	Geospatial coordinate	32-bit float	8667	-999.0	1	0	[-90,90]
Longitude	Geospatial coordinate	32-bit float	19667	-999.0	1	0	[-180,180]

Table 2. Interpretation of the qquality flags. Flags are listed in order from least significant bits (starting at 0) to most significant bits (ending at 7) in each byte. (Not all quality flags are used)

Quality flag byte	Quality flag	Bits	Definitions
QF1	TOA NDVI quality	0	0 = good quality 1 = poor quality
	TOC EVI quality	1	0 = good quality 1 = poor quality
	TOC NDVI quality	2	0 = good quality 1 = poor quality
	Band I1 TOA reflectance quality	3	0 = good quality 1 = poor quality
	Band I2 TOA reflectance quality	4	0 = good quality 1 = poor quality
	Band I1 TOC reflectance quality	5	0 = good quality 1 = poor quality
	Band I2 TOC reflectance quality	6	0 = good quality 1 = poor quality
	Band M3 TOC reflectance quality	7	0 = good quality 1 = poor quality
QF2	EVI out of range	0	0 = in range 1 = out of range
	Surface type	1-3	001: deep ocean 010: shallow water 011: land 100: snow

			101: arctic 110: Antarctic and Greenland 111: desert
	Cloud confidence	4-5	00 = confident clear 01 = probably clear 10 = probably cloudy 11 = confident cloudy
	Sun glint	6	0 = no sun glint 1 = sun glint
	Spare	7	
QF3	Thin cirrus reflective	0	0 = thin cirrus 1 = no thin cirrus
	Solar zenith angle stratification	1	0 = no stratification 1 = stratification
	AOT exclusion	2	0 = no exclusion 1 = exclusion
	Solar zenith angle exclusion	3	0 = no exclusion 1 = exclusion
	Snow	4	0 = no snow 1 = snow
	Adjacent cloud	5	0 = no adjacent cloud 1 = adjacent cloud
	Aerosol quantity	6-7	00 = climatology 01 = low 10 = average 11 = high
QF4	Cloud shadow	0	0 = no shadow 1 = shadow
	Aerosol optical thickness quality	1-2	00 = high quality 01 = degraded quality 10 = excluded quality

			11 = not produced
	Cloud mask quality	3-4	00 = poor 01 = low 10 = medium 11 = high
	Spare	5-7	