**About Version 1 VIIRS Day/Night Band Nighttime Lights**

The Earth Observations Group (EOG) at NOAA/NCEI is producing a version 1 suite of average radiance composite images using nighttime data from the Visible Infrared Imaging Radiometer Suite (VIIRS) Day/Night Band (DNB).   
  
Prior to averaging, the DNB data is filtered to exclude data impacted by stray light, lightning, lunar illumination, and cloud-cover. Cloud-cover is determined using the VIIRS Cloud Mask product (VCM). In addition, data near the edges of the swath are not included in the composites (aggregation zones 29-32).   
  
Temporal averaging is done on a monthly and annual basis. The version 1 series of monthly composites has not been filtered to screen out lights from aurora, fires, boats, and other temporal lights. However, the annual composites have layers with additional separation, removing temporal lights and background (non-light) values.   
  
The version 1 products span the globe from 75N latitude to 65S. The products are produced in 15 arc-second geographic grids and are made available in geotiff format as a set of 6 tiles. The tiles are cut at the equator and each span 120 degrees of latitude. Each tile is actually a set of images containing average radiance values and numbers of available observations.   
  
In the monthly composites, there are many areas of the globe where it is impossible to get good quality data coverage for that month. This can be due to cloud-cover, especially in the tropical regions, or due to solar illumination, as happens toward the poles in their respective summer months. Therefore, it is imperative that users of these data utilize the cloud-free observations file and not assume a value of zero in the average radiance image means that no lights were observed.   
  
The version 1 monthly series is run globally using two different configurations. The first excludes any data impacted by stray light. The second includes these data if the radiance vales have undergone the stray-light correction procedure (<http://spie.org/Publications/Proceedings/Paper/10.1117/12.2023107?SSO=1>). These two configurations are denoted in the filenames as "vcm" and "vcmsl" respectively. The "vcmsl" version, that includes the stray-light corrected data, will have more data coverage toward the poles, but will be of reduced quality. It is up to the users to determine which set is best for their applications. The annual versions are only made with the “vcm” version, excluding any data impacted by stray light.

**Last Annual Dataset Available: 2016**