



VIIRS

Visible Infrared Imaging Radiometer Suite

Mission: Collects images and radiometric data used to provide information on the Earth's clouds, atmosphere, oceans and land surfaces

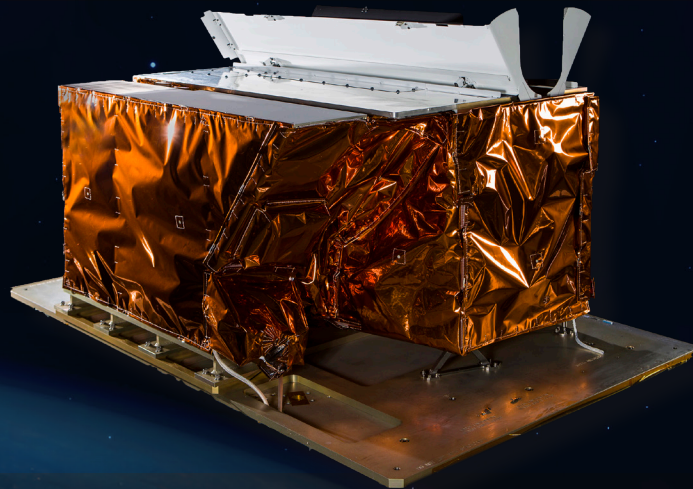
Instrument Contractor: Raytheon,
El Segundo, California

22 Spectral Bands Coverage: from 412 nm to 12 μm

Nadir Resolution: 400 m

Scanned Swath: 3000 km (max)

Average Data Rate: 7,674,000 bps



What is VIIRS?

The Visible Infrared Imaging Radiometer Suite (VIIRS) instrument collects visible and infrared images and global observations of the land, atmosphere, cryosphere and oceans.

Currently flying on the Suomi NPP and NOAA-20 satellite missions, VIIRS instruments generate many critical environmental products pertaining to snow and ice cover, clouds, fog, aerosols, fire, smoke plumes, dust, vegetation health, phytoplankton abundance and chlorophyll. VIIRS will also be flown on the JPSS-2, -3 and -4 satellites.

VIIRS features daily imaging capabilities across multiple electromagnetic spectrum bands to collect high-resolution atmospheric imagery and other instrument products, including visible and infrared images of hurricanes and detection of fires, smoke and particles in the atmosphere, such as dust.

Benefits

- VIIRS generates products for the operational weather community that improve weather, flooding and storm forecasting abilities, which help to protect life and property.
- The maritime forecasting products of sea ice and ocean nutrients from VIIRS help the maritime and commercial fishing industries—improving vessel routing and making fishery management more efficient.
- The agricultural industry benefits from fire monitoring and vegetation index—along with weather warnings—which are critical to production yield.
- VIIRS produces higher-resolution and more accurate measurements of sea surface temperature, as well as an operational capability for ocean color observations and products. Ocean color is an indicator of water quality supporting a wide range of decisions from fishing to tourism.
- The VIIRS Day/Night Band also provides nighttime imagery, which is essential for Alaska during the winter months.