

**DATA PRODUCTS**


## Shortwave-infrared imagery

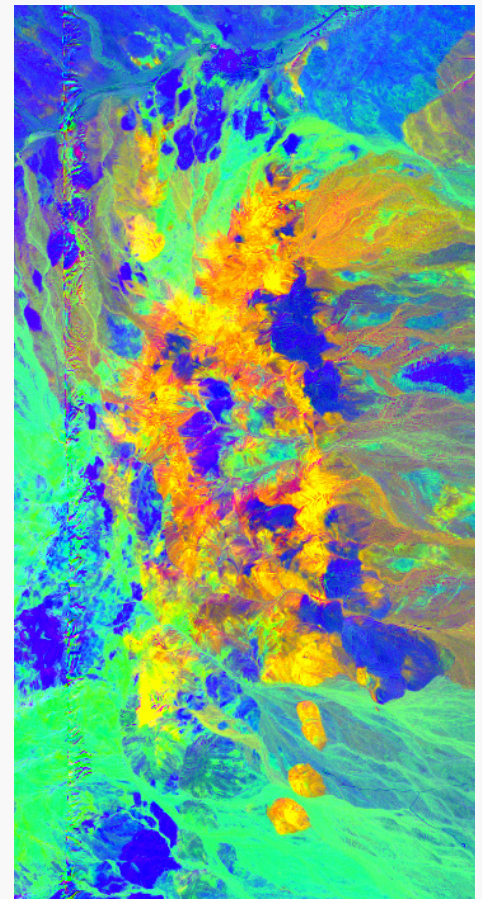
In addition to offering the highest resolution satellite imagery available today, WorldView-3 is the first commercial satellite to have eight high-resolution bands that capture information in the shortwave infrared (SWIR) regions of the electromagnetic spectrum. WorldView-3 expands deeper into the infrared spectrum than any other commercial imaging satellite, and provides rich data for precisely identifying and characterizing man-made and natural material, penetrating smoke, and mapping minerals. The eight SWIR bands capture unique information for agriculture, forestry, mining/geology, and other applications.

### Features

- » High resolution
  - 7.5 m
  - 3.7 m (USG only)
- » Spectral diversity
  - 8 Bands of SWIR information
  - 1195–2365 nm
- » High radiometric response
  - 14-bit digitization (up to 16,384 levels of gray scale)
  - Discrete non-overlapping bands
- » Open systems
  - Imaging geometry supplied
  - Compatible with leading commercial software providers
  - Popular image file formats
- » Imaging geometry, geometric calibration, radiometric calibration, and other metadata supplied with satellite imagery

### Benefits

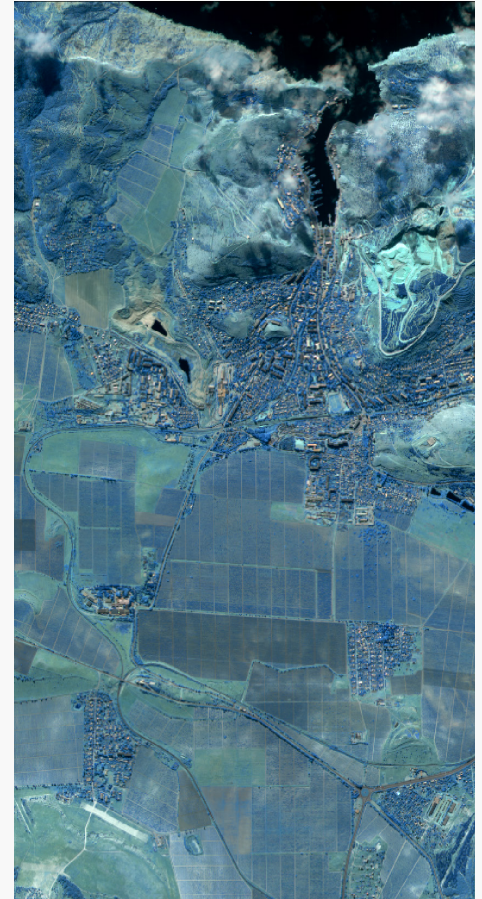
- » Identify features and perform analyses that are not possible with visible and near-infrared alone
- » Bands optimized for the detection of features of greatest interest
- » Ideal for penetrating smoke, mapping minerals, and identifying man-made features



False color composite of SWIR mineral indices

## Specifications

Product options		
	Pixel Resolution	Image Bands
SWIR	7.5 m / 3.7 m (USG only)	SWIR 1, SWIR 2, SWIR 3, SWIR 4, SWIR 5, SWIR 6, SWIR 7, SWIR 8
Spectral characteristics		
SWIR 1		1195–1225 nm
SWIR 2		1550–1590 nm
SWIR 3		1640–1680 nm
SWIR 4		1710–1750 nm
SWIR 5		2145–2185 nm
SWIR 6		2185–2225 nm
SWIR 7		2235–2285 nm
SWIR 8		2295–2365 nm
<small>*Spectral response curves available upon request</small>		
Scene size		
At nadir		10.8 km cross-track
Image accuracy specifications		
WorldView-3 SWIR		7.5 m CE90
Order parameters		
Product level		1B (USG only), 2A, OR2A, L3
Image bits/pixel		8 or 16 bits (16-bit data is strongly recommended)
File format		GeoTIFF, NITF (USG only)
Processing		
Radiometric corrections	Sensor Corrections	Resampling Options
<ul style="list-style-type: none"> <li>Relative radiometric response between detectors</li> <li>Non-response detector fill</li> <li>Conversion to absolute radiometry</li> </ul>	<ul style="list-style-type: none"> <li>Internal detector geometry</li> <li>Optical distortion</li> <li>Scan distortion</li> <li>Any line-rate variations</li> </ul>	<ul style="list-style-type: none"> <li>2x2 bilinear</li> <li>Nearest neighbor (recommended)</li> <li>Cubic convolution</li> </ul>



## Deliverables

Acquire SWIR imagery directly from the DigitalGlobe archive or through a new collection request. SWIR imagery is ordered by the scene, with a minimum purchase of a single scene up to a maximum of 10,000 sq km per order. Products are delivered on a choice of standard digital media with all the Image Support Data files needed for processing, including imaging geometry, geometric calibration, radiometric calibration, and other metadata.

DS-SWIR 02/17