Guide: Vantor Satellite Constellation
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PGC provides high-resolution imagery from Vantor (previously Maxar Technologies (2017-2025) and DigitalGlobe (1994-2017)). Here you will find information about the satellites' spatial and temporal resolution, spectral capabilities, and more!

About Vantor

Vantor is a commercial imagery company currently headquartered in Westminster, Colorado. DigitalGlobe and MDA Holdings Company merged to become Maxar Technologies in 2017, and Maxar split in 2025 to become Vantor and Lanteris Space Systems.

Vantor operates a constellation of ten electro-optical earth imaging satellites. Six of the satellites are included in the Electro-Optical Commercial Layer (EOCL) license contract for use across US Government agencies, federal contractors and other entities (like PGC) supporting US Government interests.

> For more information, visit Vantor's Constellation.

WorldView-1

WorldView-1 was Vantor's second satellite, increasing capacity for the growing demand for commercial satellite imagery.

Launched in September 18, 2007, WorldView-1 has a single panchromatic band with a resolution of 0.5 m.

Satellite Specifications

Launched: 2007
Operational Altitude: 496 km
Spectral Characteristics: Panchromatic
Sensor Resolution: 50 cm GSD at nadir
Dynamic Range: 11-bits per pixel
Swath Width: 17.7 km at nadir

Capacity: 1.3 million km^2 per day
Stereo Collection: Yes

Datasheet

WorldView-2

Vantor's third satellite was launched on October 8, 2009.

WorldView-2 provides commercially available panchromatic imagery of .46 m resolution, and 8-band multispectral imagery with 1.84 m (6 ft 0 in) resolution.

Satellite Specifications

Launched: 2009
Operational Altitude: 770 km
Spectral Characteristics: Panchromatic + 8 Multispectral
Sensor Resolution: 46 cm GSD at nadir
Dynamic Range: 11-bits per pixel
Swath Width: 16.4 km at nadir

Capacity: 1.0 million km^2 per day
Stereo Collection: Yes

Datasheet

WorldView-3

Launched on August 13, 2014, WorldView-3 provides commercially available panchromatic imagery of 0.31 m (12 in) resolution, which was the highest resolution commercially available at the time.

In addition, eight-band multispectral imagery with 1.24 m (4 ft 1 in) resolution and shortwave infrared (SWIR) imagery at 3.7 m (12 ft 2 in) resolution are also available.

Satellite Specifications

Launched: 2014
Operational Altitude: 617 km
Spectral Characteristics: Panchromatic + 8 Multispectral + 8 SWIR + 12 CAVIS
Sensor Resolution: 31 cm GSD at nadir
Dynamic Range: 11-bits per pixel, 14-bits per pixel SWIR
Swath Width: 13.1 km at nadir

Capacity: 680,000 km^2 per day
Stereo Collection: Yes

Datasheet

WorldView-4

Launched on November 11, 2016, WorldView-4 was Vantor’s fifth high-resolution satellite but was decommissioned in 2019.

Satellite Specifications

Launched: 2016
Operational Altitude: 617 km
Spectral Characteristics: Panchromatic + 4 Multispectral Bands
Sensor Resolution: Pan: 31 cm GSD at nadir; MS: 1.24 m at nadir
Dynamic Range: 11-bits per pixel
Swath Width: 13.2 km at nadir

Capacity: 680,000 km^2 per day

Stereo Collection: Yes

Datasheet

> As of 2018, WorldView-4 is not available in the NRO Electro-Optical Commercial Layer (EOCL) license.

WorldView Legion

A constellation of six satellites launched May 2, 2024 to February 4, 2025.

Satellite Specifications

Launched: 2024
Operational Altitude: 518 km
Spectral Characteristics: Panchromatic + 8 Multispectral Bands
Sensor Resolution: Pan: 34 cm GSD at nadir; MS: 1.36 m at nadir
Dynamic Range: 11-bits per pixel
Swath Width: 10 km at nadir
Capacity: tbd
Stereo Collection: Yes

Datasheet

> As of 2026, WorldView Legion is not available in the NRO Electro-Optical Commercial Layer (EOCL) license.

QuickBird

Vantor's first Earth observation satellite, QuickBird launched in October of 2011 and became the first satellite provide commercially-available sub-meter optical imagery.

QuickBird was retired in December 2014 after its mission was extended in 2011 by raising the orbital altitude from 450km to 482km.

Satellite Specifications

Launched: 2011
Operational Altitude: 400-450 km
Spectral Characteristics: Panchromatic + 4 Multispectral
Sensor Resolution: 55-61 cm GSD at nadir
Dynamic Range: 11-bits per pixel
Swath Width: 14.9-16.8 km at nadir

Capacity: 200,000 km^2 per day
Stereo Collection: Yes

Datasheet

IKONOS

A pioneer in earth-observation satellites, IKONOS was the first to collect publicly available high-resolution imagery at 1-(panchromatic) and 4-(multispectral) meter resolution.

Launched on September 24, 1999, the satellite performed for more than twice its life expectancy when it was retired in March 2015.

Satellite Specifications

Launched: 1999
Operational Altitude: 681 km
Spectral Characteristics: Panchromatic + 4 Multispectral
Sensor Resolution: 82 cm GSD at nadir
Dynamic Range: 11-bits per pixel
Swath Width: 11.3 km at nadir

Capacity: 240,000 km^2 per day
Stereo Collection: Yes

Datasheet

GeoEye-1

Originally owned and operated by GeoEye Inc., GeoEye-1 was launched on September 6, 2008.

GeoEye-1 offers four multispectral bands (red, green, blue and near-infrared) in addition to its panchromatic band, which has a maximum resolution of 41 cm.

Satellite Specifications

Launched: 2008
Operational Altitude: 681 km
Spectral Characteristics: Panchromatic + 4 Multispectral Bands
Sensor Resolution: Pan: 41 cm GSD at nadir; MS: 1.65 m GSD at nadir
Dynamic Range: 11-bits per pixel
Swath Width: 15.3 km at nadir

Capacity: 350,000 km^2 per day
Stereo Collection: Yes

Datasheet

Summary

In this Guide, we've covered:

- History of Vantor
- Detailed specifications of sensors