PGC provides high-resolution imagery from DigitalGlobe. Here you will find information about the satellites’ spatial and temporal resolution, spectral capabilities, and more!

**About DigitalGlobe**

DigitalGlobe, Inc. is a commercial satellite imagery company founded in 2001 and currently headquartered in Westminster, Colorado.

DigitalGlobe operates a constellation of five electro-optical earth imaging satellites.

**First Launch**

The company launched its first satellite on October 18, 2001. At the time, QuickBird-2 was capable of collecting the highest resolution imagery of any commercial satellite on the market.

DigitalGlobe quickly established customers in a diverse spectrum of industries including mapping, real estate, government military/intelligence, engineering, oil and gas, environmental services, and aviation applications.

In September of 2007, DigitalGlobe launched the WorldView-1 satellite, partially financed by the National Geospatial-Intelligence Agency and capable of collecting 0.5-meter resolution panchromatic imagery in monoscopic and stereoscopic modes. Originally designed for seven years of operation, WorldView-1 continues to collect imagery in a recently modified afternoon orbit.

In May of 2009, DigitalGlobe went public on the New York Stock Exchange with an initial public offering of approximately $279 million dollars at $19.00 per share, and currently trades under the ticker symbol “DGI.”

Late 2009 also saw the launch of DigitalGlobe’s third satellite, WorldView-2, adding 8-band multispectral imaging capabilities to the company’s constellation.

**Acquisition of GeoEye**

DigitalGlobe acquired competing company GeoEye in 2013, which included GeoEye’s imagery archive, ground station infrastructure, and existing satellite assets IKONOS, GeoEye-1, and the unlaunched GeoEye-2.

With the approaching completion of Worldview-3, DigitalGlobe made the decision to keep GeoEye-2 as a ground spare in storage to be launched when needed.

WorldView-3 was successfully launched from Vandenberg Air Force Base in August of 2014.

With both QuickBird and IKONOS decommissioned in 2015, the decision was made to remove GeoEye-2 (renamed to WorldView-4) from storage and launch the satellite on November 11, 2016.

For more information, visit DigitalGlobe’s website.

[Constellation Brochure](#)
WorldView-1

WorldView-1 was DigitalGlobe’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 km² per day
- **Stereo Collection:** Yes

[Datasheet](#)

WorldView-2

DigitalGlobe’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 km² 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

**WorldView-4**

Launched on November 11, 2016, WorldView-4 is DigitalGlobe’s newest high-resolution satellite.

Satellite Specifications

**Launch Date:** 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 km² per day

**Stereo Collection:** Yes

Datasheet

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As of 2018, WorldView-4 is not available in the NGA NextView license.

**QuickBird**

DigitalGlobe’s first Earth observation satellite, QuickBird launched in October of 2011 and became the first satellite to 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

**Launch Date:** 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

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 km² per day
- **Stereo Collection**: Yes

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 km² per day
- **Stereo Collection**: Yes
Summary

In this Guide, we’ve covered:

- History of DigitalGlobe, Inc.
- Detailed specifications of DigitalGlobe sensors