



WorldView-1

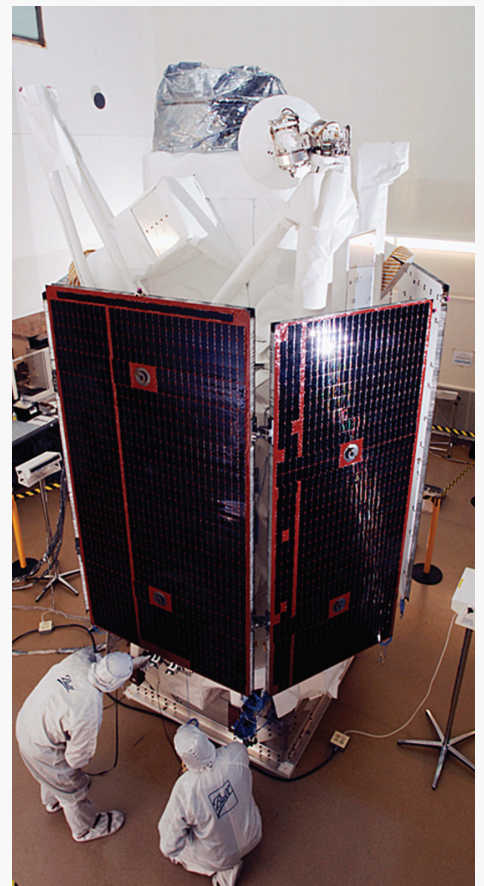
WorldView-1, launched September 2007, is the first of our next-generation satellites—the most agile satellites ever flown commercially. The high-capacity, panchromatic imaging system features half-meter resolution imagery. Operating at an altitude of 496 km, WorldView-1 has an average revisit time of 1.7 days and is capable of collecting over one million sq km per day of half-meter imagery. The satellite is also equipped with state-of-the-art geolocation accuracy capabilities and exhibits stunning agility with rapid targeting and efficient in-track stereo collection. WorldView-1 is currently on the move. Over the course of two years the orbit will be adjusted to achieve a descending node of 1:30pm.

Features

- » Very high resolution
- » Industry-leading geolocation accuracy
 - Ultra-stable platform, high-precision attitude sensors and GPS
- » Highest capacity over a broad range of collection types (wider than any competitor)
- » Bi-directional scanning
- » Rapid retargeting using Control Moment Gyros (>2x faster than any competitor)
- » Direct downlink to customer sites available
- » World-class telescope
 - High contrast (MTF) and signal-to-noise ratio
 - Selectable Time Delay Integration (TDI) levels
- » Frequent revisits at high resolution

Benefits

- » Provides highly detailed imagery for precise map creation, change detection, and in-depth image analysis
- » Geolocate features to less than 5 m to create maps in remote areas, maximizing the utility of available resources.
- » Collects, stores, and downlinks a greater supply of frequently updated global imagery products than competitive systems
- » Stereoscopic collection on a single pass, ensures image continuity and consistency of quality
- » Extends the range of suitable imaging collection targets and enhances image interpretability



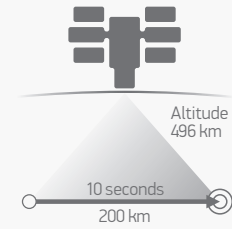
WorldView-1 clean room pre-launch preparations. The second of DigitalGlobe's state-of-the-art high-resolution commercial imagery satellites.

DIGITALGLOBE CONSTELLATION » WORLDVIEW-1

Design and specifications

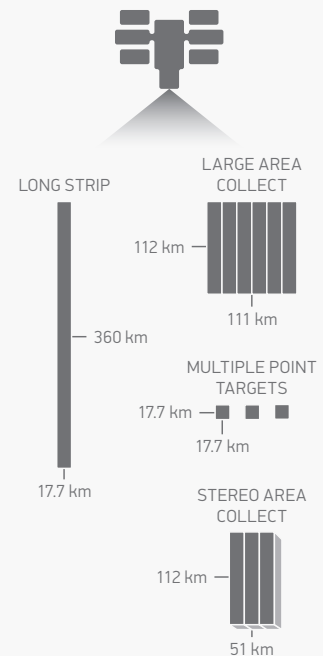
Launch Information	Date: September 18, 2007 Launch Vehicle: Delta 7920 (9 strap-ons) Launch Site: Vandenberg Air Force Base, California	
Orbit	Altitude: 496 km Type: Sun synchronous, 10:30 am descending node Period: 95 min.	Altitude: 496 km Type: Sun synchronous, 1:30 pm descending node Period: 95 min.
Mission Life	10-12 years, including all consumables and degradables (e.g. propellant)	
Spacecraft Size, Mass and Power	3.6 m (12 ft) tall x 2.5 m (8 ft) across 7.1 m (23 ft) across the deployed solar arrays 2290 kg (5038 lbs) 3.2 kW solar array, 100 Ahr battery	
Sensor Bands	Panchromatic: 400 - 900 nm	
Sensor Resolution	50 cm Ground Sample Distance (GSD) at nadir 55 cm GSD at 20° off-nadir	
Dynamic Range	11-bits per pixel	
Swath Width	17.7 km at nadir	
Attitude Determination and Control	3-axis stabilized Actuators: Control Moment Gyros (CMGs) Sensors: Star trackers, solid state IRU, GPS	
Pointing Accuracy and Knowledge	Accuracy: <500 m at image start and stop Knowledge: Supports geolocation accuracy below	
Retargeting Agility	Time to Slew 200 km: 10 sec	
Onboard Storage	2199 Gb solid state with EDAC	
Communications	Image and Ancillary Data: 800 Mbps X-band Housekeeping: 4, 16 or 32 kbps real-time, 524 kbps stored, X-band Command: 2 or 64 kbps S-band	
Max Contiguous Area Collected in a Single Pass (30° off-nadir angle)	Mono: 111 x 112 km (6 strips) Stereo: 51 x 112 km (3 pairs)	
Revisit Frequency (at 40°N Latitude)	1.7 days at 1 m GSD or less 5.4 days at 20° off-nadir or less (0.55 m GSD)	
Geolocation Accuracy (CE90)	Demonstrated <4.0 m CE90 without ground control	
Capacity	1.3 million km ² per day	

Altitude and slew time



Collection scenarios

(30° off-nadir angle)



Sensor band

 Panchromatic