

WorldView-4

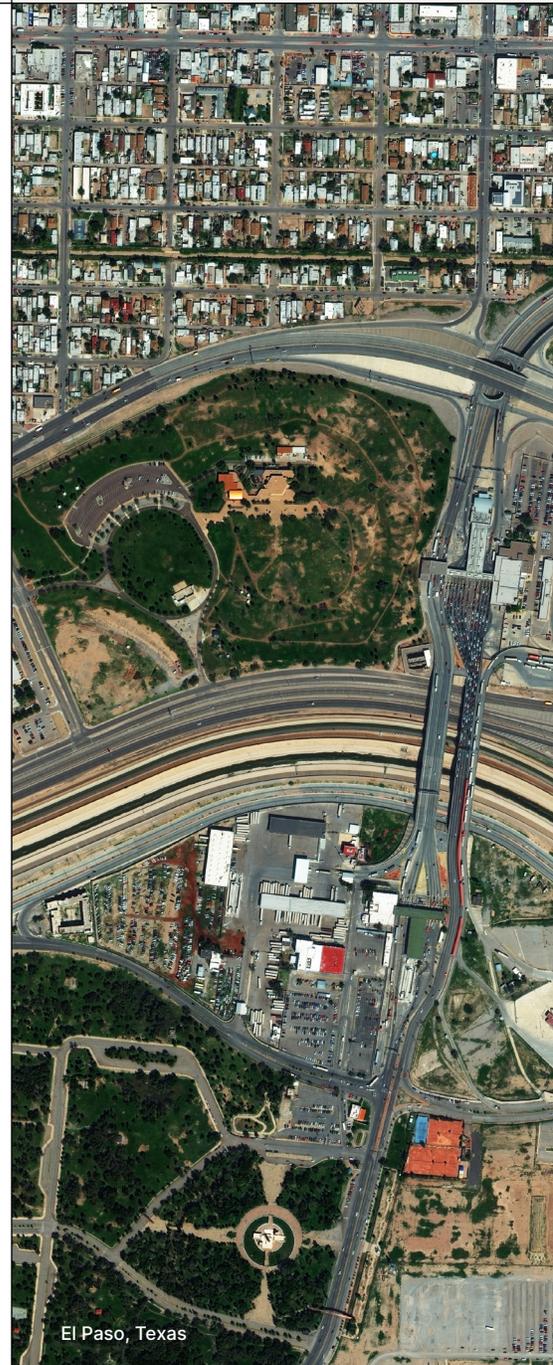
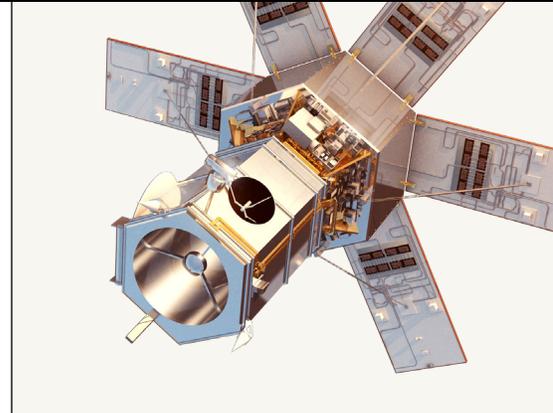
WorldView-4 offers multispectral, high-resolution commercial satellite imagery from the Vantor imagery archive. WorldView-4 is retired from the Vantor™ constellation, but it provides archive imagery at 31 cm panchromatic resolution and 1.23 m multispectral resolution.

Features

- + Highest-resolution imagery
 - o Panchromatic 31 cm
 - o Visible and near-infrared 1.24 m
- + Industry-leading geolocation accuracy
- + High capacity in various collection modes
- + Bi-directional scanning
- + Rapid targeting using Control Moment Gyros (two times faster than any competitor)
- + Direct access tasking from and image transmission to customer sites

Benefits

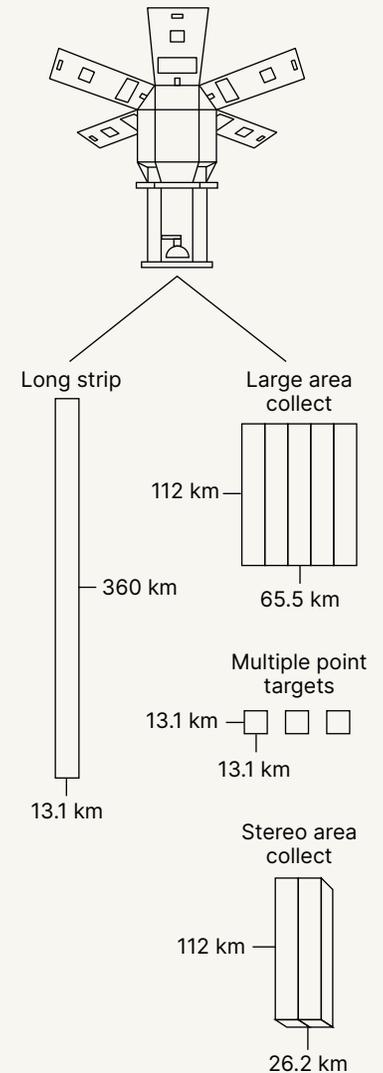
- + Simultaneous, high-resolution, super-spectral imagery
- + Super-spectral imagery
- + Large area mono and stereoscopic collection eliminates temporal variations
- + Precision geolocation possible without ground control points
- + Global capacity of 680,000 sq km per day, which doubled Vantor's 30 cm collection capability and the ability to collect for large-area mapping projects at the highest commercially available resolution



Specifications

Orbit	Altitude: 617 km Type: Sun-synchronous, 10:30 am descending Node Period: 97 min
Spacecraft size and aperture	Size: 5.3 m (17.7 ft.) tallx2.5 m (8 ft.) across 7.9 m (26 ft.) across deployed solar arrays Aperture: 1.1 m
Sensor bands	Panchromatic: 450-800 nm 4 Multispectral: Red: 655-690 nm Green: 510-580 nm Blue: 450-510 nm Near-IR: 780-920 nm
Sensor resolution (or GSD, Ground Sample Distance; off-nadir is geometric mean)	Panchromatic Nadir: 0.31 m 20 degrees off-nadir: 0.34 m 56 degrees off-nadir: 1.00 m Multispectral nadir: 1.24 m 20 degrees off-nadir: 1.38 m 56 degrees off-nadir: 4.00 m
Dynamic range	11-bits per pixel
Swath width	At nadir: 13.2 km
Attitude determination and control	Type: 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: 10.6 sec
Onboard storage	3200 GB solid state with EDAC
Communications	Image and ancillary data: 800 mbps X-band Housekeeping: 120 kbps real time, X-band Command: 64 kbps S-band
Max contiguous area collected in a single pass (30 degrees off-nadir angle)	Mono: 66.5 kmx112 km (5 strips) Stereo: 26.6 kmx112 km (2 pairs)
Revisit frequency (at 40 degrees North latitude)	1 m GSD: <1.0 day Total constellation >4.5 accesses/day
Geolocation accuracy (CE90)	Predicted <5 m CE90 without ground control
Capacity when collecting	680,000 sq km per day

Collection scenarios



Sensor bands

-  Panchromatic
-  Multispectral