WorldView-2, launched October 2009, is the first high-resolution 8-band multispectral commercial satellite. Operating at an altitude of 770 km, WorldView-2 provides 46 cm panchromatic resolution and 1.85 m multispectral resolution. WorldView-2 has an average revisit time of 1.1 days and is capable of collecting up to 1 million sq km of 8-band imagery per day, greatly enhancing Maxar’s multispectral collection capacity for more rapid and reliable collection. WorldView-2 substantially expands imagery product offerings to all Maxar customers.

**Features**
- Very high resolution
- The most spectral diversity commercially available
  - 4 standard colors: blue, green, red, near-IR1
  - 4 new colors: coastal, yellow, red edge, and near-IR2
- Industry-leading geolocation accuracy
- High capacity over a broad range of collection types
- Bi-directional scanning
- Rapid retargeting using Control Moment Gyros (>2x faster than any competitor)
- Direct downlink to customer sites available
- 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
- Provides the ability to perform precise change detection, mapping and analysis at unprecedented resolutions in 8-band multispectral imagery
Design and specifications

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<th>MAXAR CONSTELLATION - WORLDVIEW-2</th>
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**Launch Information**
- **Date:** October 8, 2009
- **Launch Vehicle:** Delta 7920 (9 strap-ons)
- **Launch Site:** Vandenberg Air Force Base, California

**Orbit**
- **Altitude:** 770 km
- **Type:** Sun synchronous, 10:30 am descending node
- **Period:** 100 min.

**Mission Life**
- 10-12 years, including all consumables and degradables (e.g. propellant)

**Spacecraft Size, Mass and Power**
- **5.7 m (18.7 ft) tall x 2.5 m (8 ft) across**
- **7.1 m (23 ft) across the deployed solar arrays**
- **2815 kg (6,05 lbs)**
- **3.2 kW solar array, 100 Ahr battery**

**Sensor Bands**
- **Panchromatic:** 450 - 800 nm
- **8 Multispectral:**
  - Coastal: 400 - 450 nm
  - Blue: 450 - 510 nm
  - Green: 510 - 580 nm
  - Yellow: 585 - 625 nm
  - Near-IR1: 770 - 895 nm
  - Near-IR2: 860 - 1040 nm

**Sensor Resolution**
- **Panchromatic:** 0.46 m GSD at nadir, 0.52 m GSD at 20° off-nadir
- **Multispectral:** 1.85 m GSD at nadir, 2.07 m GSD at 20° off-nadir

**Dynamic Range**
- 11-bits per pixel

**Swath Width**
- 16.4 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: 138 x 112 km (8 strips)
- Stereo: 63 x 112 km (4 pairs)

**Revisit Frequency (at 40°N Latitude)**
- 1.1 days at 1 m GSD or less
- 3.7 days at 20° off-nadir or less (0.52 m GSD)

**Geolocation Accuracy (CE90)**
- Demonstrated <3.5 m CE90 without ground control

**Capacity**
- 1 million sq km per day

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**Altitude and slew time**
- **10 seconds**
- **200 km**

**Collection scenarios**
(30 degrees off-nadir angle)

**Sensor bands**
- Panchromatic
- Multispectral