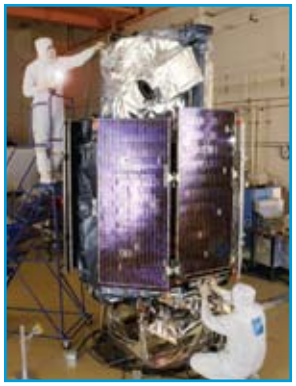
QuickBird

DigitalGlobe has established itself as the world's most prominent supplier of high-resolution commercial satellite imagery. By 2009, DigitalGlobe's constellation of satellites will be unprecedented in the commercial imaging industry, enabling commercial and government customers around the globe to access a broad selection of geospatial information products from a single source.

The QuickBird satellite is the first in a constellation of spacecraft that DigitalGlobe® is developing that offers highly accurate, commercial high resolution imagery of Earth. QuickBird's global collection of panchromatic and multispectral imagery is designed to support applications ranging from map publishing to land and asset management to insurance risk assessment.

Today, DigitalGlobe's QuickBird is the only spacecraft able to offer sub-meter resolution imagery, industry-leading geolocational accuracy, large on-board data storage, and an imaging footprint 2 to 10 times larger than any other commercial high resolution satellite.

Moreover, we are able to populate and update our digitalglobe.com archive at unprecedented speed because QuickBird's system features allow us to efficiently collect over 75 million square kilometers of imagery data annually.



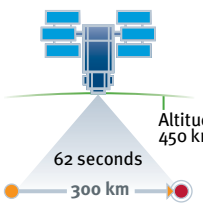
Features

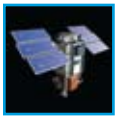
- Highest resolution available commercially
  - 60 cm (2 ft) panchromatic at nadir
  - 2.4 m (8 ft) multispectral at nadir
- Industry-leading image accuracy
  - Stable platform for precise location measurement
  - 3-axis stabilized, star tracker/IRU/ reaction wheels, C/A Code GPS
- Fastest large area collection
  - 16.5 km width imaging swath
  - 128 gigabits on-board image storage capacity
- High image quality
  - Off-axis unobscured design of QuickBird's telescope
  - Large field-of-view
  - High contrast (MTF)
  - High signal to noise ratio
  - 11 bit dynamic range

Benefits

- Acquire high quality satellite imagery for map creation, change detection, and image analysis
- Geolocate features to within 23 m (75.5 ft) and create maps in remote areas without the use of ground control points
- Collect a greater supply of frequently updated global imagery products more quickly than competitive systems
- Extend the range of suitable imaging collection targets and enhance image interpretability because images can be acquired at even the lowest light levels without sacrificing image quality

QuickBird Altitude and Slew Time





QuickBird

Design and Specifications

Launch Information	Date: October 18, 2001 Launch Window: 1851-1906 GMT (1451-1506 EDT) Launch Vehicle: Delta II Launch Site: SLC-2W, Vandenberg Air Force Base, California
Orbit	Altitude: 450 km, 98˚, sun-synchronous inclination Revisit frequency: 3-7 days depending on latitude at 60 centimeter resolution Viewing angle: Agile spacecraft — in-track and cross-track pointing Period: 93.4 minutes
Per Orbit Collection	~128 gigabits (approximately 57 single area images)
Swath Width and Area Size	Nominal Swath Width: 16.5 kilometers at nadir Accessible ground swath: 544 kilometers centered on the satellite ground track (to ~30° off-nadir) Areas of interest ▪ Single Area: 16.5 km x 16.5 km ▪ Strip: 16.5 km x 115 km
Metric Accuracy	23 meter circular error, 17 meter linear error (without ground control)
Sensor Resolution and Spectral Bandwidth	Panchromatic ▪ 60 centimeter (2 ft) Ground Sample Distance (GSD) at nadir ▪ Black & White: 445 - 900 nanometers Multispectral ▪ 2.4 meter (8 ft) GSD at nadir ▪ Blue: 450 - 520 nanometers ▪ Green: 520 - 600 nanometers ▪ Red: 630 - 690 nanometers ▪ Near-IR: 760 - 900 nanometers
Dynamic Range	11-bits per pixel
Communications	Payload Data: 320 Mbps X-band Housekeeping: X-band from 4, 16 and 256 Kbps, 2 Kbps S-band uplink
ADCS Approach	3-axis stabilized Star tracker/IRU/reaction wheels, C/A Code GPS
Pointing and Agility	Accuracy: less than 0.5 milliradians absolute per axis Knowledge: less than 15 microradians per axis Stability: less than 10 microradians per second
Onboard Storage	128 gigabits capacity
Spacecraft	Fueled for 7 years, 2400 pounds, 3.04 meters (10 ft) in length

Sensor Bands

Panchromatic

Multispectral

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