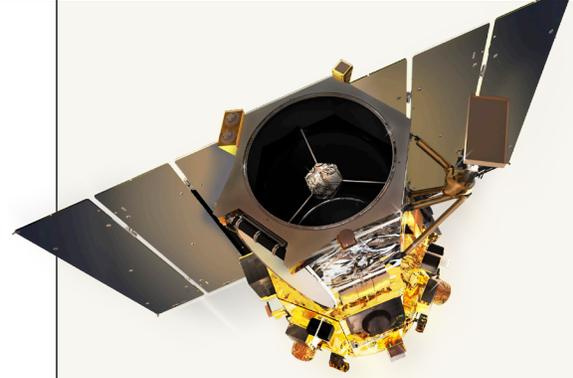


GeoEye-1



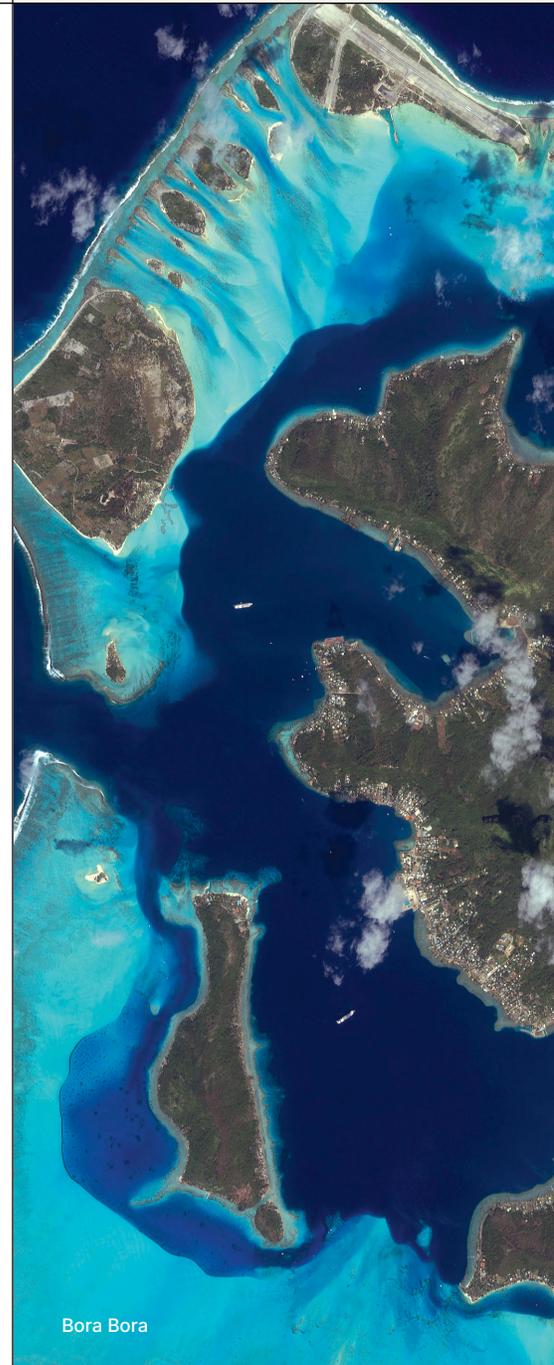
The GeoEye-1 is equipped with some of the most advanced technology ever used in a commercial remote sensing system. The satellite collects images at 0.46 m panchromatic (black-and-white) and 1.84 m multispectral resolution. GeoEye-1 can collect up to 500,000 sq km of pan-sharpened multispectral imagery per day, making it ideal for large-scale mapping projects. GeoEye-1 can revisit any point on Earth once every three days or sooner.

Features

- + Highest-resolution imagery
- + Industry-leading geolocation accuracy
- + High capacity over a broad range of collection types
- + Frequent visits at highest 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

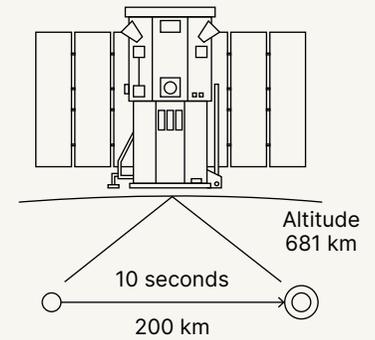


Specifications

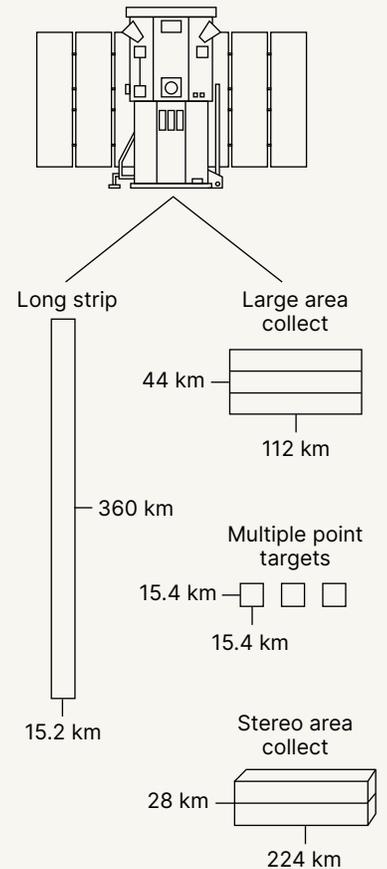
| | | |
|---|---|--|
| Launch information | + Date: 09/6/2008 + Launch vehicle: Delta II + Launch site: Vandenberg Air Force Base, California | |
| Mission life | + Expected >10 years | |
| Spacecraft size | + 4186 lbs, 4.34 m in length | |
| | Altitude 681 km | Altitude 770 km |
| Orbit | + Type: sun-synchronous, descending node + Period: 98 min | + Type: Sun-synchronous, 10:30 am descending node + Period: 98 min |
| Sensor resolution and spectral bandwidth | + Panchromatic: 41 cm GSD at nadir Black & white: 450-800 nm + Multispectral: 1.65 m GSD at nadir + Blue: 450-510 nm + Green: 510-580 nm + Red: 655-690 nm + Near-IR: 780-920 nm | + Panchromatic 46 cm GSD at nadir + Multispectral 1.84 m GSD at nadir |
| Dynamic range | + 11 bits per pixel | |
| Swath width | + Nominal swath width: 15.3 km at nadir | + Nominal swath width: 17.3 km at nadir |
| Attitude determination and control | + Type: 3-axis Stabilized Star tracker/IRU/reaction wheels, GPS | |
| Retargeting agility | + Time to slew 200 km: 20 sec | + 19 sec |
| Onboard storage | + 1 Tbit capacity | |
| Communications | + Payload data: X-band 740/150 Mbps AES/DES encryption + Housekeeping: X-band 64 kbps AES encryption | |
| Revisit frequency (at 40 degrees North latitude) | + 2.6 days at 30 degrees off-nadir | + 2.3 days at 30 degrees off-nadir or less |
| Metric accuracy | + 5 m CE90, 3 m CE90 (measured) | |
| Capacity | + 350,000 sq km/day multispectral | + 500,000 sq km/day multispectral |



Altitude and slew time



Collection Scenarios



Sensor bands

-  Panchromatic
-  Multispectral