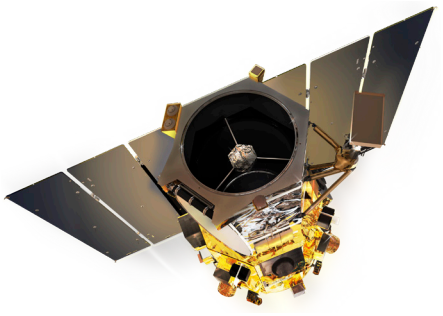
GEOEYE-1

DATA SHEET

GeoEye-1

The GeoEye-1 satellite is equipped with some of the most advanced technology ever used in a commercial remote sensing system. The satellite collects images at .46 m panchromatic (black-and-white) and 1.84 m multispectral resolution. The satellite can collect up to 500,000 sq km of pan-sharpened multispectral imagery per day. This capability is ideal for large-scale mapping projects. GeoEye-1 can revisit any point on Earth once every three days or sooner.



GeoEye-1 artist rendering

Bora Bora

Features

- Very high resolution
- Industry-leading geolocation accuracy
- High capacity over a broad range of collection types
- Direct downlink to customer sites available
- Frequent visits at high resolution

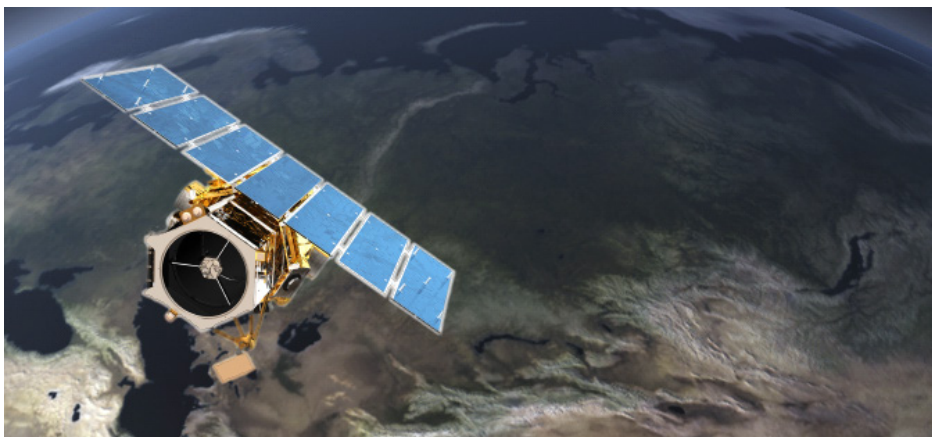
Benefits

- Provides highly detailed imagery for precise map creation, change detection and in-depth image analysis (Note: imagery must be re-sampled to 50 cm for non-US government customers)
- Geolocate features to less than 5 m to create maps in remote areas, maximizing the utility of available resources
- Collects Collects, stores and downlinks a greater supply of frequently updated global imagery products than competitive systems
- Stereoscopic collection on a single pass ensure image continuity and consistency of quality

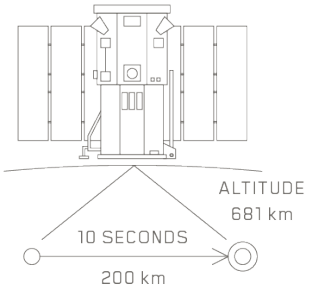
MAXAR

Specifications

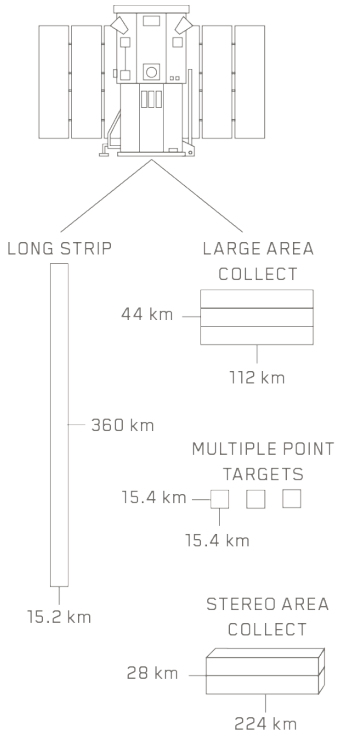
Launch information	Date: 09/6/2008 Launch vehicle: Delta II Launch site: Vandenberg Air Force Base, California	
Mission life	Expected >10 years	
Spacecraft size	4186 lbs, 4.34 m in length	
	ALTITUDE 681 KM	**ALTITUDE 770 KM**
Orbit	Type: sun-synchronous, 10:30 am descending node Period: 98 min	Type: Sun-synchronous, 10:30 am descending node Period: 100 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

MAXAR