



## IKONOS

The IKONOS satellite is the world's first commercial satellite to collect panchromatic (black-and-white) images with .80 m resolution and multispectral (color) imagery with 3.2-meter resolution. Imagery from the panchromatic and multispectral sensors can be merged to create .80 m color imagery (pan-sharpened). IKONOS imagery is being used for national security, military mapping, air and marine transportation, and by regional and local governments. From a 423-mile-high orbit, IKONOS has a revisit time of once every three days and downlinks directly to more than a dozen ground stations around the globe.

### Features

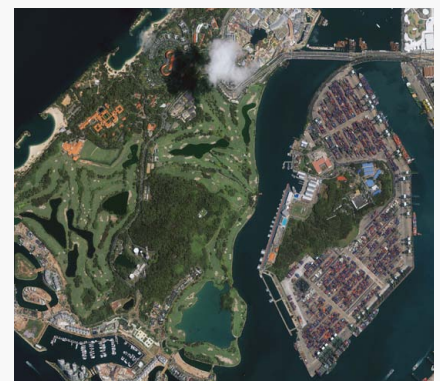
- » Sub-meter resolution imagery
  - 0.82 m panchromatic at nadir
  - 3.2 m multispectral at nadir
- » High geolocational accuracy
  - Stable platform for precise location measurement
- » Fast large area collection
  - 11.3 km imaging swath width
- » High collection capacity
  - Captures up to 240,000 km<sup>2</sup> per day

### Benefits

- » Acquire high quality satellite imagery for map creation, change detection, imagery analysis and more
- » Geolocate features to create maps worldwide
- » Collect a wide range of geospatial information products
- » Extend the range of suitable imaging collection targets improving decision making



IKONOS



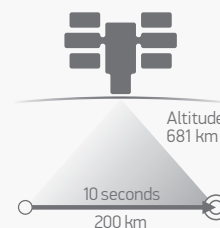
Singapore

## Design and specifications

Launch information	Date: September 24, 1999 Launch vehicle: Athena 2 Launch site: Vandenberg Air Force Base, California
Mission life	12+ years
Spacecraft size	1.83 m × 1.57 m (hexagonal configuration)
Spatial resolution	Panchromatic: 0.82 m Multispectral: 3.2 m
Positional accuracy	15 meter CE90 (specification) 9 meter CE90 (measured)
Swath width	11.3 km
Off-nadir imaging	Up to 60 degrees
Dynamic range	11 bits per pixel
Revisit time	Approximately 3 days
Orbital altitude	681 km
Nodal crossing	10:30 am
Collection capacity	240,000 km <sup>2</sup> /day (Pan + MSI)

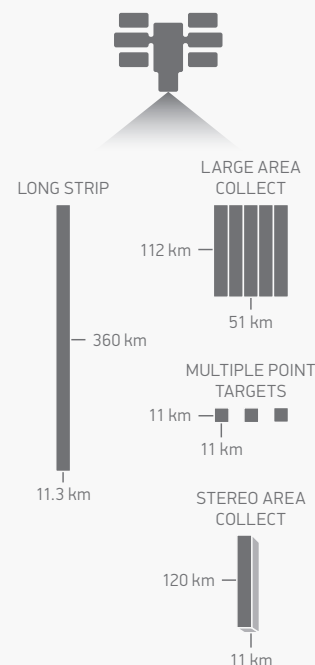


## Altitude and slew time





## Collection scenarios

(30° off-nadir angle)



## Sensor bands

-  Panchromatic
-  Multispectral