

The RapidEye Satellite Constellation Unrivaled Earth Observation Capacity

The Collection Benchmark

The RapidEye constellation of five identical satellites offers a unique combination of attributes within the industry.

A remarkable amount of high-resolution, multi spectral imagery can be collected from the satellites: up to 5 million km² a day, and over one billion km² every year.



Features

- » Five Identical Satellites equally calibrated
 Indistinguishable differences in images from any of the 5 satellites
- High-Resolution Imagery
 6.5 m (1B Basic Product)
 5 m (3A Ortho Product)
- Wide Area Coverage
 77 km swath width
- » Outstanding Daily Collection Capacity
 Up to 5 million km² of imagery collected daily
 Over 1 billion km² every year
- » Five Spectral Bands
 Blue, Green, Red, Red Edge, Near-Infrared
- Multitemporal Capabilities
 Daily revisit at low view angle never more than 20°
- » Direct Downlink Availability

Benefits

- » Regions, states and entire countries can be imaged shortly
- » Cost effective high-resolution data
- » Effective for land cover / land use classification applications, change detection, background imagery, mapping, biophysical monitoring, etc.
- » 70% of RapidEye's imagery is taken at 10° off nadir or less
- » Over 60% of the RapidEye archive has 10% cloud cover or less
- » The Red Edge band assists in advanced vegetation discrimination and identification of vegetation health status
- » EyeFind is Planet's online discovery tool, allowing easy access to the entire RapidEye archive: eyefind. blackbridge.com

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Mission and Product Characteristics

Number of Satellites	5	
Size of Each Individual Satellite	Less than one cubic meter	
Weight of Each Individual Satellite	150 kg	
Orbit Altitude	630 km (in Sun-synchronous orbit)	
Equator Crossing Time	11:00 am (approximately)	
Sensor Type	Multi spectral push broom imager	
Swath Width	77 km	
Spectral Bands	Blue Green Red Red Edge Near-Infrared	440 – 510 nm 520 – 590 nm 630 – 685 nm 690 – 730 nm 760 – 850 nm
Ground sampling distance (nadir)	6.5 m	
Pixel size (orthorectified)	5 m	
On board data storage	Up to 1500 km of image data per orbit	
Revisit time	Daily (off-nadir; always less than 20°), 5.5 days (at nadir).	
Image capture capacity	5 million km²/day	
Camera Dynamic Range	12 bit	



EyeFind - Online Archive

EyeFind provides you online viewing access to the complete archive of Rapid-Eye imagery. With EyeFind you can easily search and browse images collected by the RapidEye constellation over your specific area of interest. Visit eyefind.blackbridge.com

For Further Information

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