



# Planet Labs at a Glance

Satellite operations and data pipeline overview

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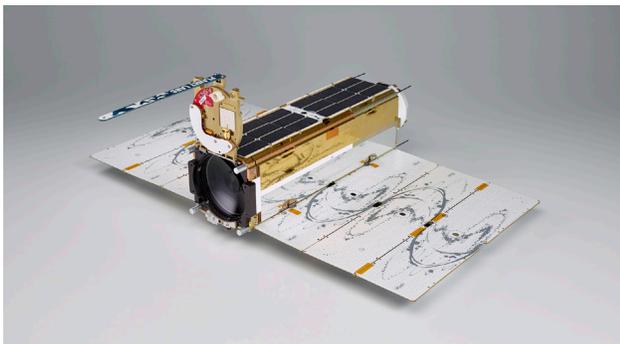
# An Introduction to Planet Labs

Planet Labs is a CA-based aerospace company that design, builds and operates the world's largest fleet of Earth imaging satellites. Planet Labs was founded in 2011 and has designed, built, launched, and operated over 100 small satellites with the objective of having 150 satellites in a sun synchronous orbit by the end of 2016 collecting the entire land mass of the Earth every day at 3-5 meters resolution in Red, Green, Blue and Near Infrared wavelengths.

In 2015, Planet Labs acquired BlackBridge and its RapidEye satellite fleet. Currently Planet Labs integrates more than 5 billion km<sup>2</sup> of archival data and some 5 million km<sup>2</sup> of new, daily collection from five RapidEye satellites into Planet's operations. Planet has over 300 employees located across the globe, delivering imagery to a network of over 100 partners.

## The Constellation

Planet builds the Dove satellite, a 3-unit cubesat that's packed with the latest technologies.

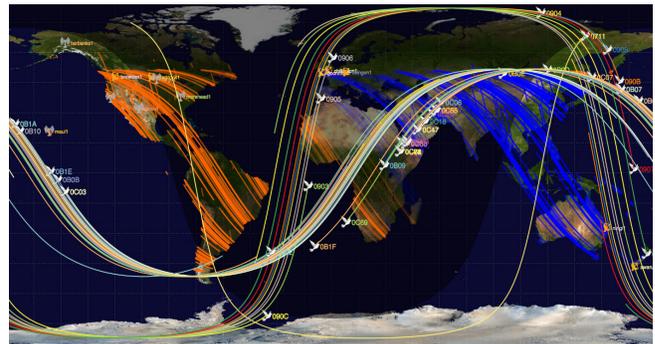


## The Dove Spacecraft at a Glance:

- Size: 3U form factor 10x10x30cm
- Weight 4-5kg
- Structure: lightweight aluminum
- Telescope and Camera: Bayer Mask CCD sensor sees objects 3-5m in size
- Spectral bands: RGB, NIR

Dove satellites are designed to operate in concert to continuously collect imagery of the sunlit portion of the Earth's surface. RapidEye satellites are "tasked" to areas of interest. At full constellation, Planet Labs' monitoring capability is expected to yield approximately one complete global image dataset every day.

Planet is working towards a fleet of 150 Dove satellites operating in Sun Synchronous Orbit. Planet projects that 150 satellites will capture the Earth's landmass every day. Ground stations on 3 continents collect imagery data from the Planet Labs fleet multiple times a day.

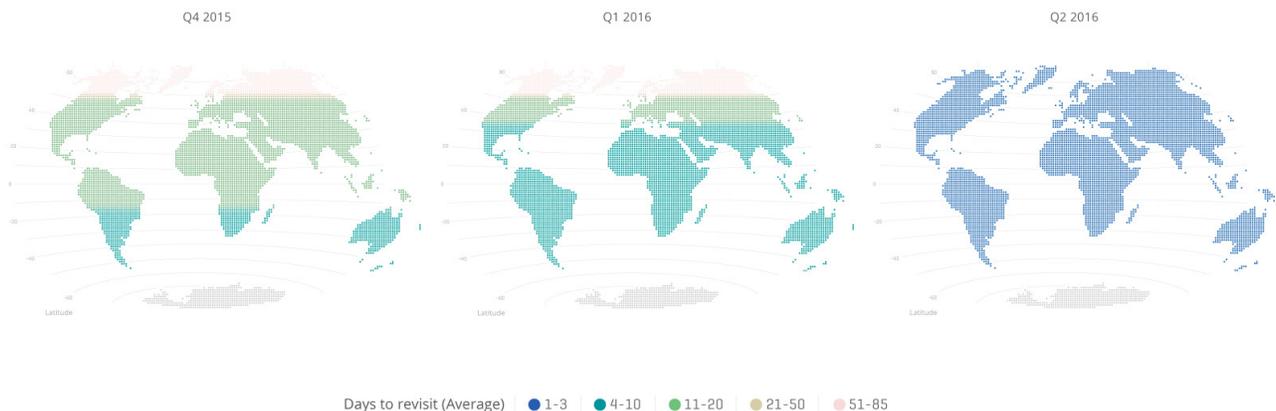


Currently Planet Labs operates a constellation of 45 spacecraft across two orbits:

ISS Orbit	Sun Synchronous Orbit
30 Dove spacecraft	10 Dove Spacecraft
	5 Rapideye Satellites

\*operated from Berlin, Germany. RapidEye satellites not represented in the graphic above.

### Projected Satellite Revisit Times by Quarter



Above predictions are subject to change, as all launches may slip or be delayed.

## Data Pipeline

Planet Labs has built a fully automated data pipeline, designed to handle heavy data loads from a fleet of 150 satellites. Customers will be able to access imagery within 24 hours from capture via Planet's web product.

Simultaneously, Planet Labs operates and maintains a fleet of 150 satellites and 30 ground stations. The infrastructure allows Planet to collect and process 11 terabytes of imagery data per day.



Image Provided by Planet Labs

## With frequent satellite imagery, you can...

- Monitor forest growth and around the world
- Measure crop health, track farm operations, assess global crop production
- Build better maps. Track changing land use, new road construction, urban development, and more
- Improve disaster response operations. Get updated before/after imagery of affected areas, and direct humanitarian aid accordingly
- ...and more



Image Provided by Planet Labs

Farmers and Agriculture companies can monitor crop health with RGB and Near Infrared imagery

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## Other Applications

Nepal Earthquake, April 2015 - Original aid worker maps show limited infrastructure in Nepal. The new infrastructure, based on Planet Labs imagery, successfully helped to identify two towns that were outside the areas currently covered by other crisis mapping.



### Commercial Customers



### Contact Planet

General Information: [planet.com](http://planet.com)

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