

About PlanetScope and SkySat

What

Two optical constellations – PlanetScope and SkySat – capture high and very high resolution imagery over the entire Earth every day. Both constellations are owned and operated by Planet Labs PCB (Planet) and were accepted as Third Party Missions in February 2022

PlanetScope

When

Launched begin



In 2013, SkySat-1 was launched. Starting 2014, multiple groups of individual Dove satellites were launched in batches called "flocks". Launches are ongoing

How

New sensors on the SuperDove satellites enhance the PlanetScope imagery from four to eight spectral bands, with six aligned to Copernicus Sentinel-2 bands. The three cameras of each SkySat satellite jointly capture stereo imagery and video footage for up to 90 seconds during the day and night. Advanced remote sensing is possible when Planet data are fused with other land monitoring missions, such as Landsat and Copernicus Sentinel-2

PlanetScope constellation
>200 Dove and SuperDove nanosatellites

circle the Earth
90 min



Coverage

3.7m

70km²

400km²

SkySat

PlanetScope

PlanetScope and SkySat are operating in various orbital planes in low Earth orbit. The PlanetScope constellation consists of over 200 Dove and SuperDove nanosatellites, which circle Earth every 90 minutes, providing daily, global imagery at 3.7 to 4.0 m native resolution. SkySat is a fleet of 21 very high-resolution satellites capable of collecting sub-metric images multiple times during the day. The fleet of Doves line-scan Earth with individual scenes sized at around 400 square kilometres, the size of an entire city. Simultaneously, with a ground footprint of 70 square kilometres, SkySat can focus on areas of greatest interest, identifying objects such as vehicles and shipping containers

Applications

PlanetScope and SkySat data serve numerous commercial and governmental applications. The data are now available for R&D through the ESA TPM programme, offering rapid high and very high resolution imaging. Planet data support activities in the following areas:

- Monitoring rapid changes in vegetation and land use
- Detailed vegetation mapping
- Surface deformation (earthquake displacements)
- Cryosphere and hydrology monitoring
- Monitoring transport & urban infrastructure
- Emergency & security applications