



Planet's New Space capabilities complementing Copernicus Users Needs

ESA Living Planet Symposium 2022, 23-27 May, Bonn
B8.05 Copernicus Contributions Missions (VHR)



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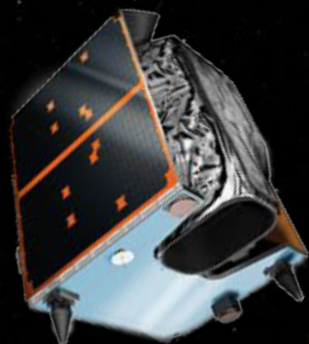


Planet's Mission

To image the whole world every day,
making change **visible, accessible,
and actionable.**

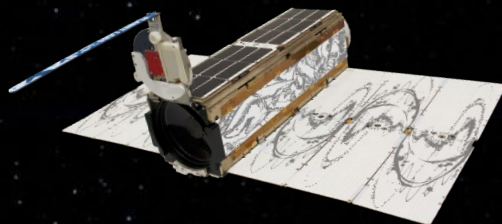


Planet's Constellations Contributing to Copernicus



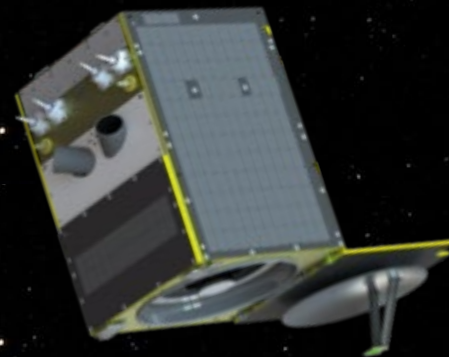
5 RapidEye
Satellites

Archive 2009-2019 only



200+

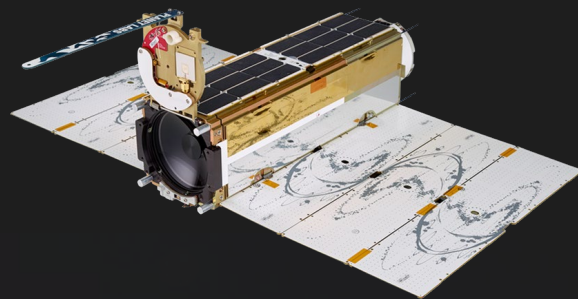
Dove Satellites
PlanetScope



21 SkySat
Satellites

Last updated: May 2022





Doves



SATELLITES
200+

GSD
3.7 m

CAPACITY
300 million km²/day

ORBIT ALTITUDE
475 km

SPECTRAL BANDS
**RGB + Green II, Red
Edge, Yellow, Coastal
Blue, and NIR**

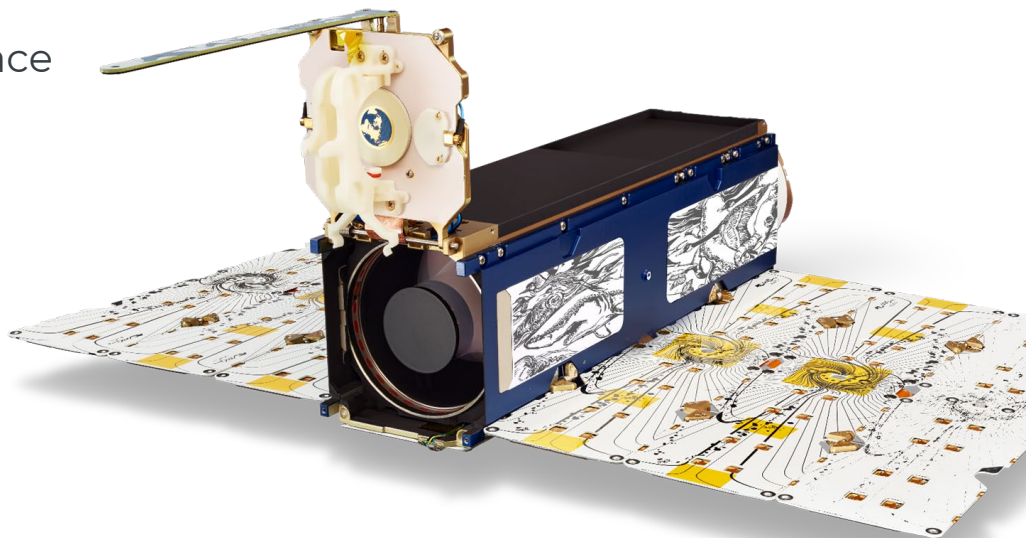


SuperDove

Next Gen PlanetScope with 8 bands

Additional bands means more information about the Earth's surface

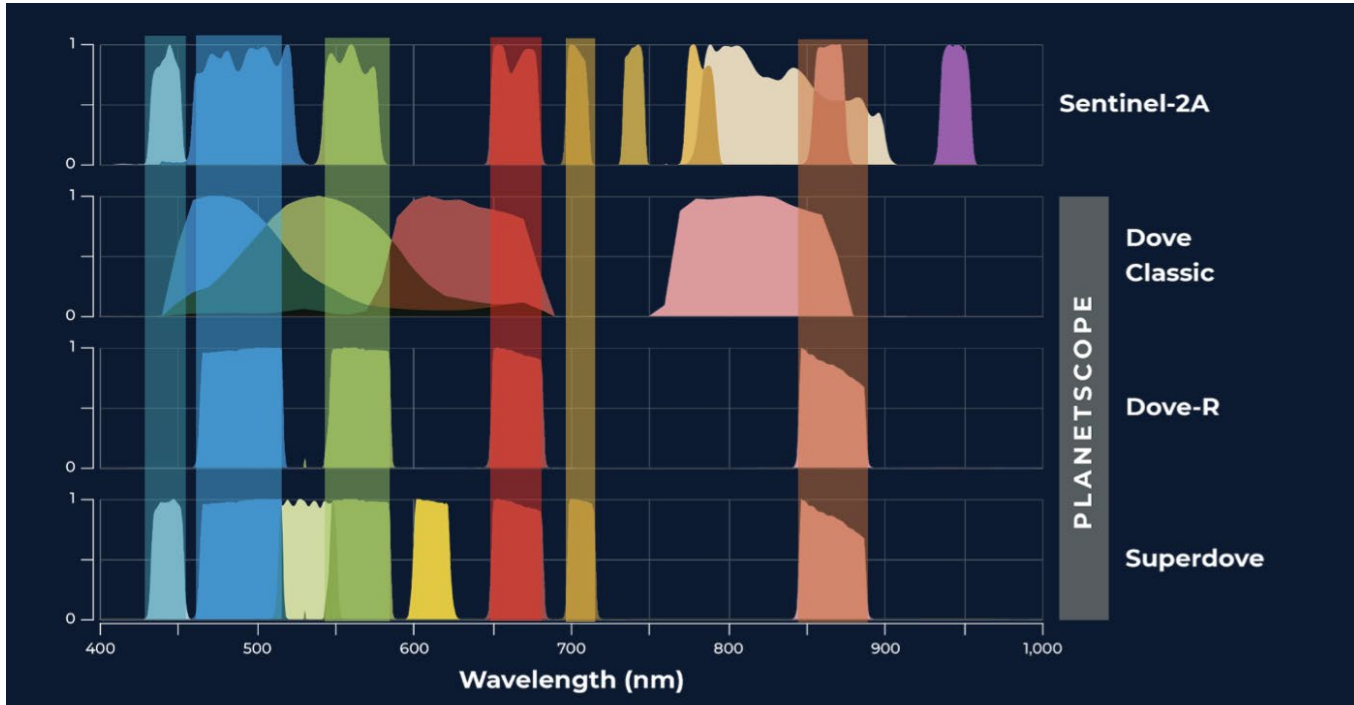
- **Red, Green, Blue + Near Infrared**
- **Coastal blue**
near-shore bathymetry
- **Red-edge**
vegetation stress & water quality
- **Yellow**
crop and land cover classification
- **530 nm Green**
plant health





Complementary of PlanetScope and Sentinel-2 data

PlanetScope and Sentinel-2 data are spectrally compliant





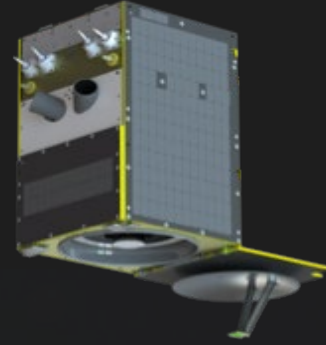
Agile Aerospace



15

Dove Builds in 7 Years

- Continuous iterations
- 3-6 month design lifecycle
- Leverage other industries' R&D



SkySat



SATELLITES
21

GSD
0.65 m

CAPACITY
400 K km²/day

ORBIT ALTITUDE
450 km

SPECTRAL BANDS
RGB, PAN and NIR

Rosetta Earth Satellite



- 1000 km
- 1000 km
- 1000 km

Rosetta Earth Constellation

1000 km



Rosetta Earth Satellite



- 1000 km
- 1000 km
- 1000 km

Rosetta Earth Constellation

1000 km

1000 km

1000 km



WHAT IS AVAILABLE TO Copernicus USERS



Streaming
Services



VHR2 PlanetScope
Archive & Monitoring



VHR1 Hi-Res tasking
intra-day revisit



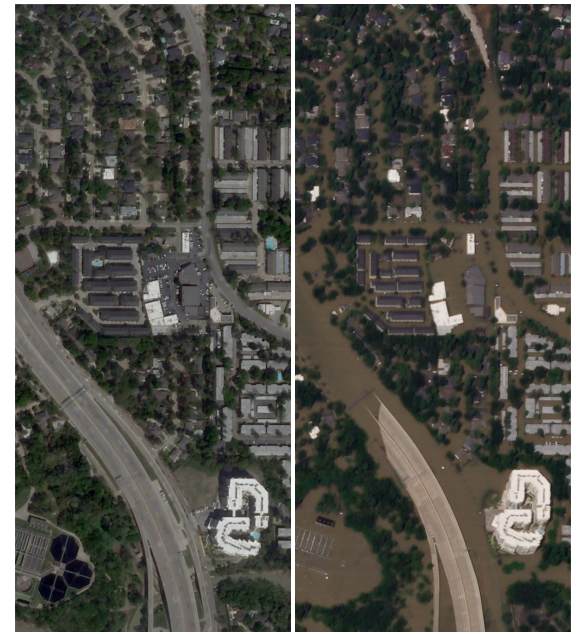
Application examples within Copernicus



Asset/Policy monitoring & competitive intelligence



Event response/recovery & tip-and-cue



Catastrophe assessment & risk modeling



Planet Streaming Services

Fast and Easy visual assessment of an event over a large territory

- Faster and Efficient access to Planet imagery
- Only internet connection and a laptop needed
- Ability to overlay imagery in with other GIS layers
- Less data to manage
- Suitable for workflows requiring visual inspection and analysis
- Clients available to you: **Planet_Explorer, QGIS, ArcGIS Pro, API**
- Available protocols: **XYZ, WMTS**

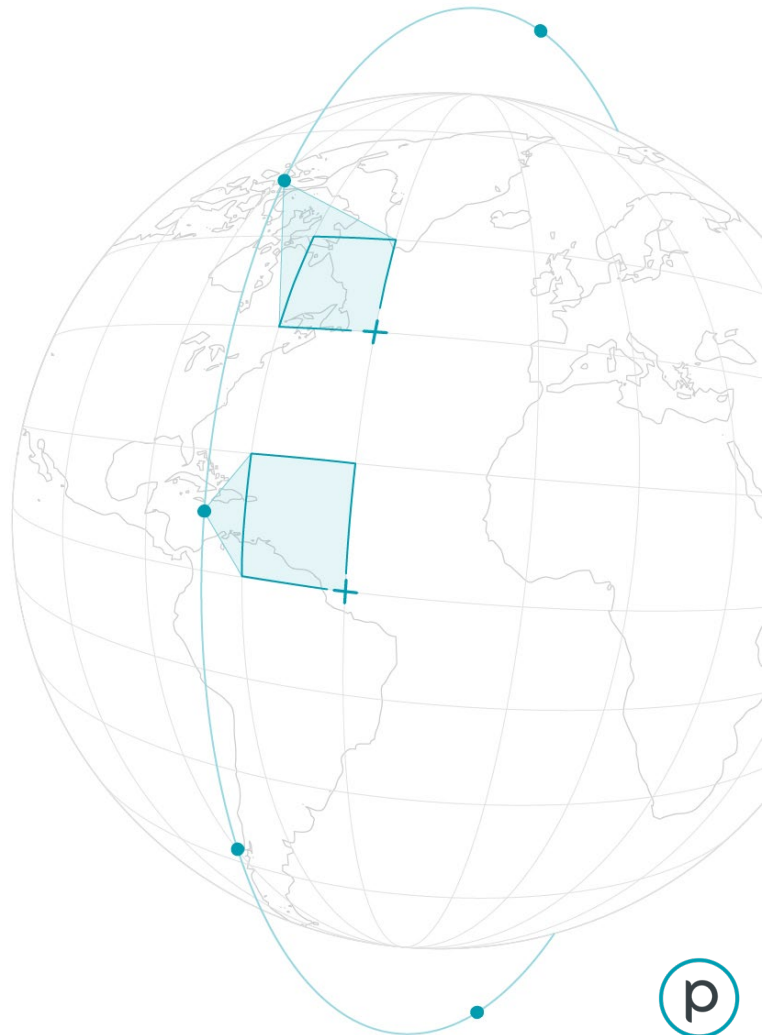




Planet Tasking

Rapid collection of high-resolution imagery

- **Image any point on Earth** at 50 cm resolution
- **On-demand** collection at < 15% cloud cover
- **Monthly, weekly, daily or sub-daily collections**
- **Transparent, automated access** to imagery acquisition
- **Differentiated Capabilities.** Video, stereo, and off-nadir imaging
- **Historical data** with 10M+ sq km of SkySat archive



Port of Abu Dhabi
Today, Sep 23



06:53 UTC (10:53 local) SSC12

Port of Abu Dhabi
Today, Sep 23



07:32 UTC (11:32 local) SSC1

Port of Abu Dhabi
Today, Sep 23



09:38 UTC (13:38 local) SSC8

Port of Abu Dhabi
Today, Sep 23

09:50 UTC (13:50 local) SSC9



Meet Pelican

Planet's next-generation satellite constellation for delivering high-resolution, rapid revisit insights anywhere on the globe.

RESPONSIVE

RAPID REVISIT

HIGHLY PRECISE

INTEROPERABLE



Act for the future.



A leap forward in capabilities

Expansive
coverage

Up to

32

satellites

Higher daily
revisit

Up to

30

captures
per day

Ultra-fast
acquisition

5

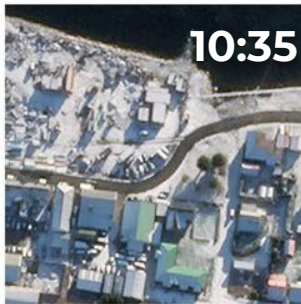
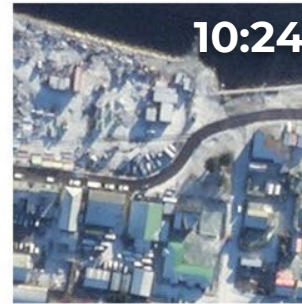
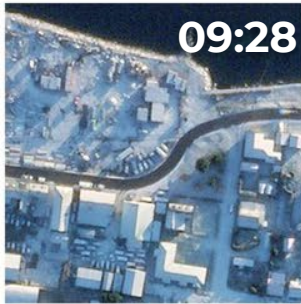
minutes
or less

Greater
precision

30

cm
resolution





Rapid Revisit

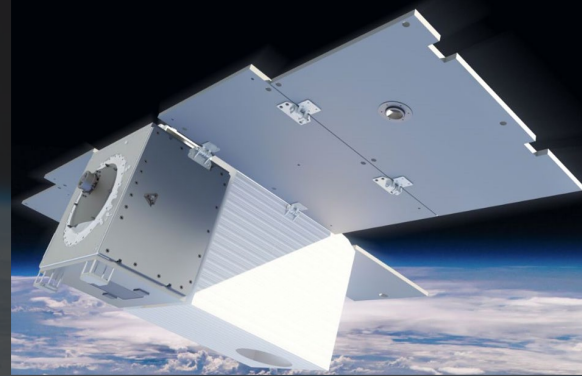
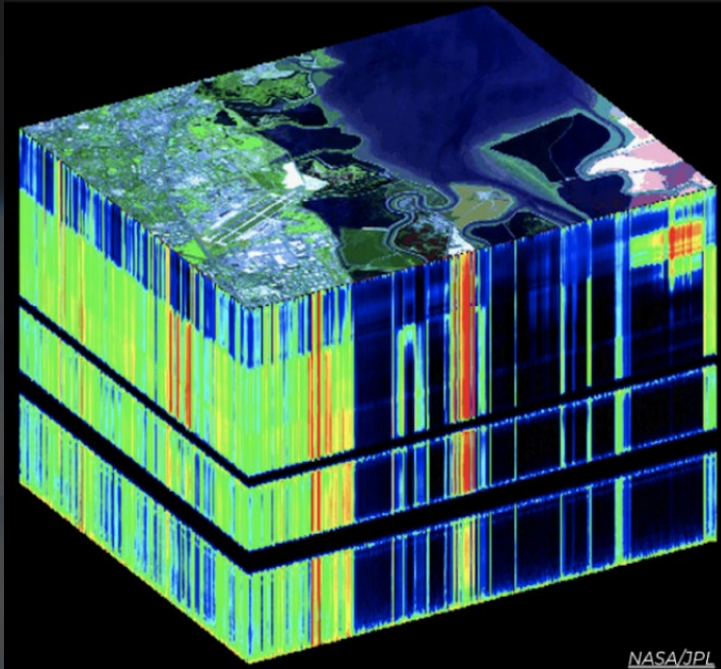
Stanley, Falkland Islands
July 14, 2021

all times FKST



Meet Carbon Mapper

hyperspectral mission to detect carbon and methane emissions



Carbon Mapper

GSD
30 m

CAPACITY
93k - 315k km²/day/satellite

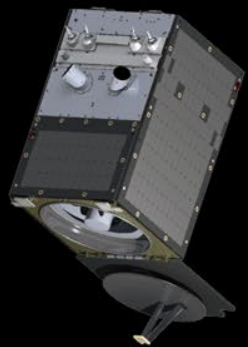
ORBIT ALTITUDE
400 km

SPECTRAL BANDS
400-2500 nm @ 5 nm spacing

Carbon Mapper
HYPER SPECTRAL



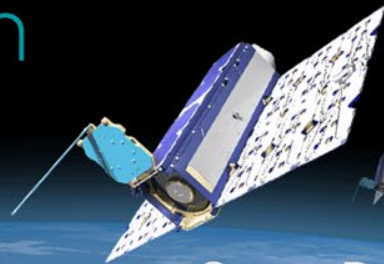
SkySat
50 CM TASKING



Planet's Virtual Constellation



Pelican
VERY HIGH-RESOLUTION
RAPID REVISIT



SuperDove
3-5 M MONITORING

Automated Mission Control

Planetary Scale
Processing Pipeline



Not shown to scale



Thank You.



Engage with Planet's Science Programs and apply here for Planet Data via ESA Earthnet
go.planet.com/lps22



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