

# PLANET LABS

## High Cadence Global Imagery

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International Business Development

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At Planet, “Mission 1” is to image the whole Earth, every day and make global change visible, accessible, and actionable.



We live in an age when **human activity** has become a primary driver of change upon our planet.

The systems that enable life on Earth, have come under **unprecedented stress**.



In Mexico, Hyper-Urbanization

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In the Amazon, Deforestation

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In the Middle East, Resource Stress

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In East Africa, Food Insecurity



In North America, Infrastructure Challenges

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In South Asia, Climate Refugees

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Everywhere, Dramatic Planetary Change

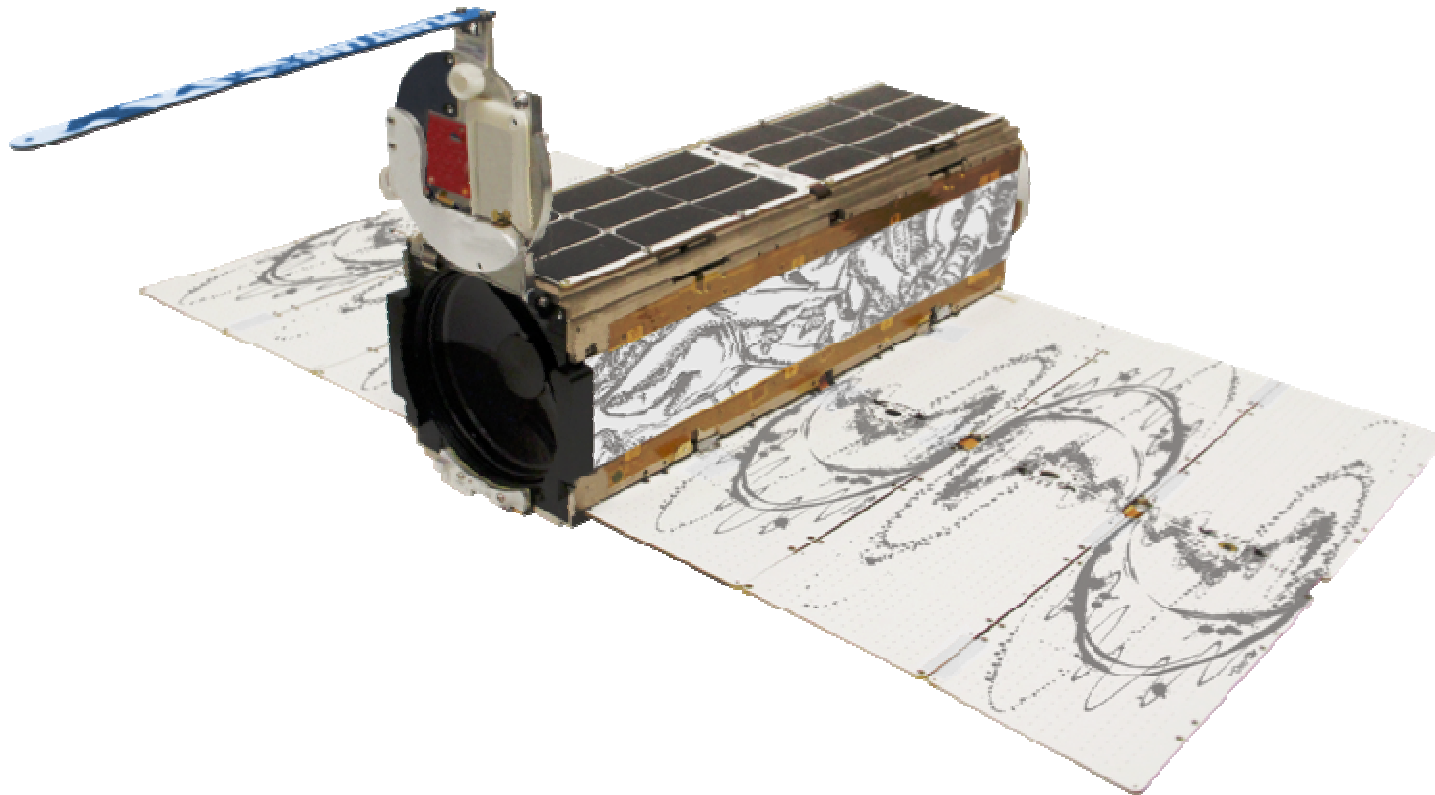


Planet Labs, 2011



# The Dove Spacecraft

10 CM x 10 CM x 30 CM; 4 KG





# Operational Capacity

Constellation	ISS Flock	SSO Flock
Orbital Altitude	400 km	450 – 620 km
Spectral Ranges	<i>Blue</i> 424 – 478 nm <i>Green</i> 515 – 610 nm <i>Red</i> 630 – 714 nm <i>Near Infrared</i> 750 – 900 nm (expected availability in 2016)	
Spatial Resolution	3 m GSD	5m GSD
Geoaccuracy	<20 m RMS	
Image Products	Sensor-calibrated, non-rectified GeoTIFF Orthorectified GeoTIFF	



# Agile Aerospace

ITERATE FAST, RELEASE OFTEN

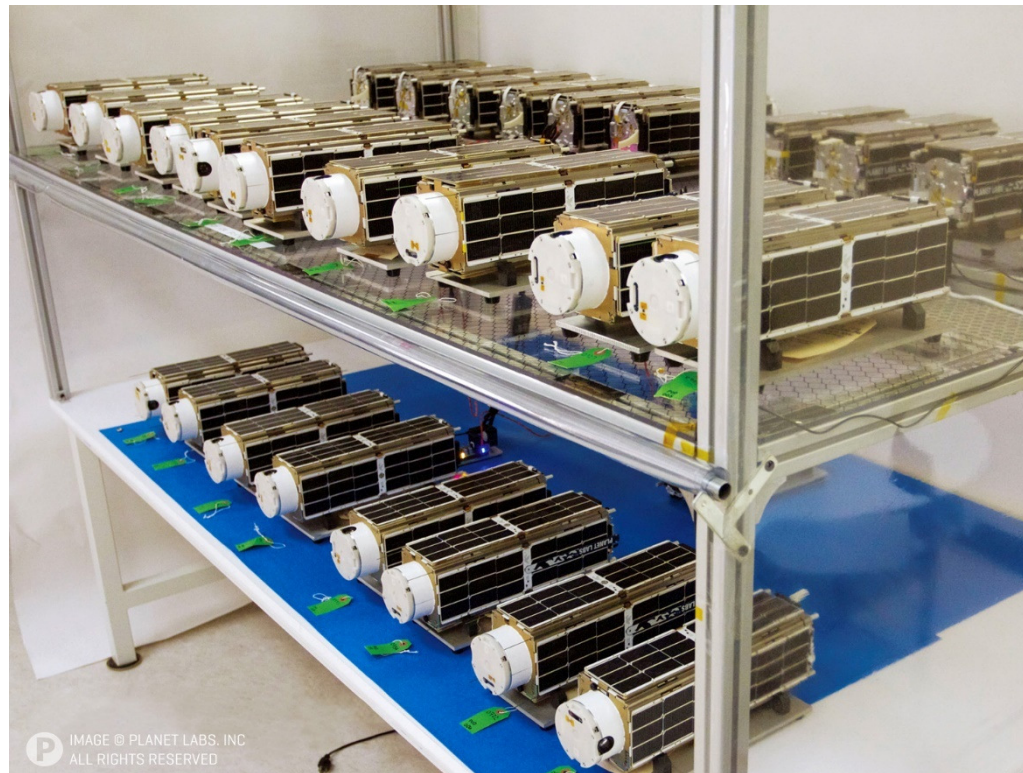


IMAGE © PLANET LABS, INC.  
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# Agile Aerospace

12 DESIGN CYCLES IN 3 YEARS

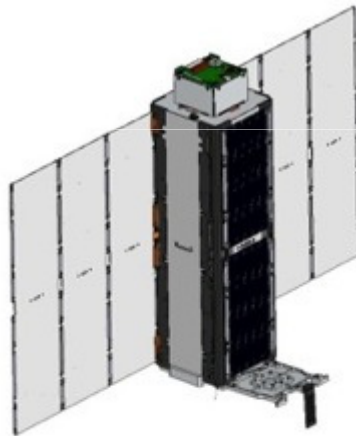


**BUILD 1**  
The original



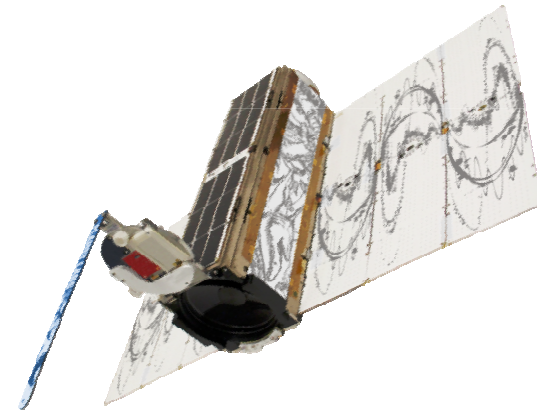
APR 2012

**BUILD 6**  
Dove 1



APR 2013

**BUILD 12**  
Flock 1e



APR 2015



Traditional Satellites:

2800 kg

.5 meters/pixel

1 of ~5



Planet Labs Satellites:

4 kg

3-5 meters/pixel

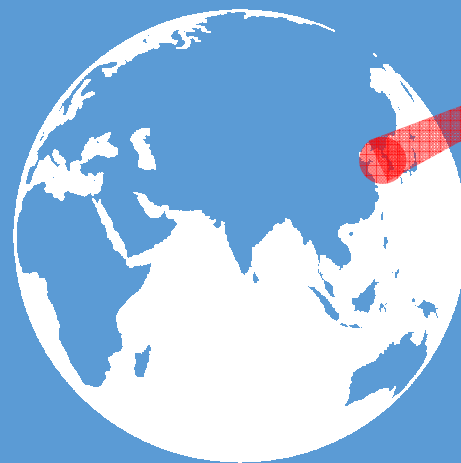
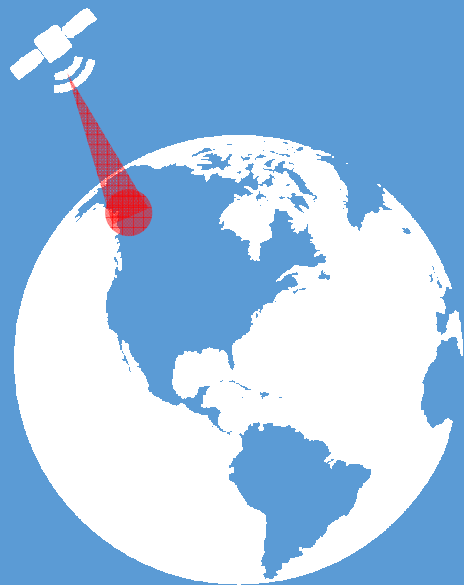
1 of ~100's

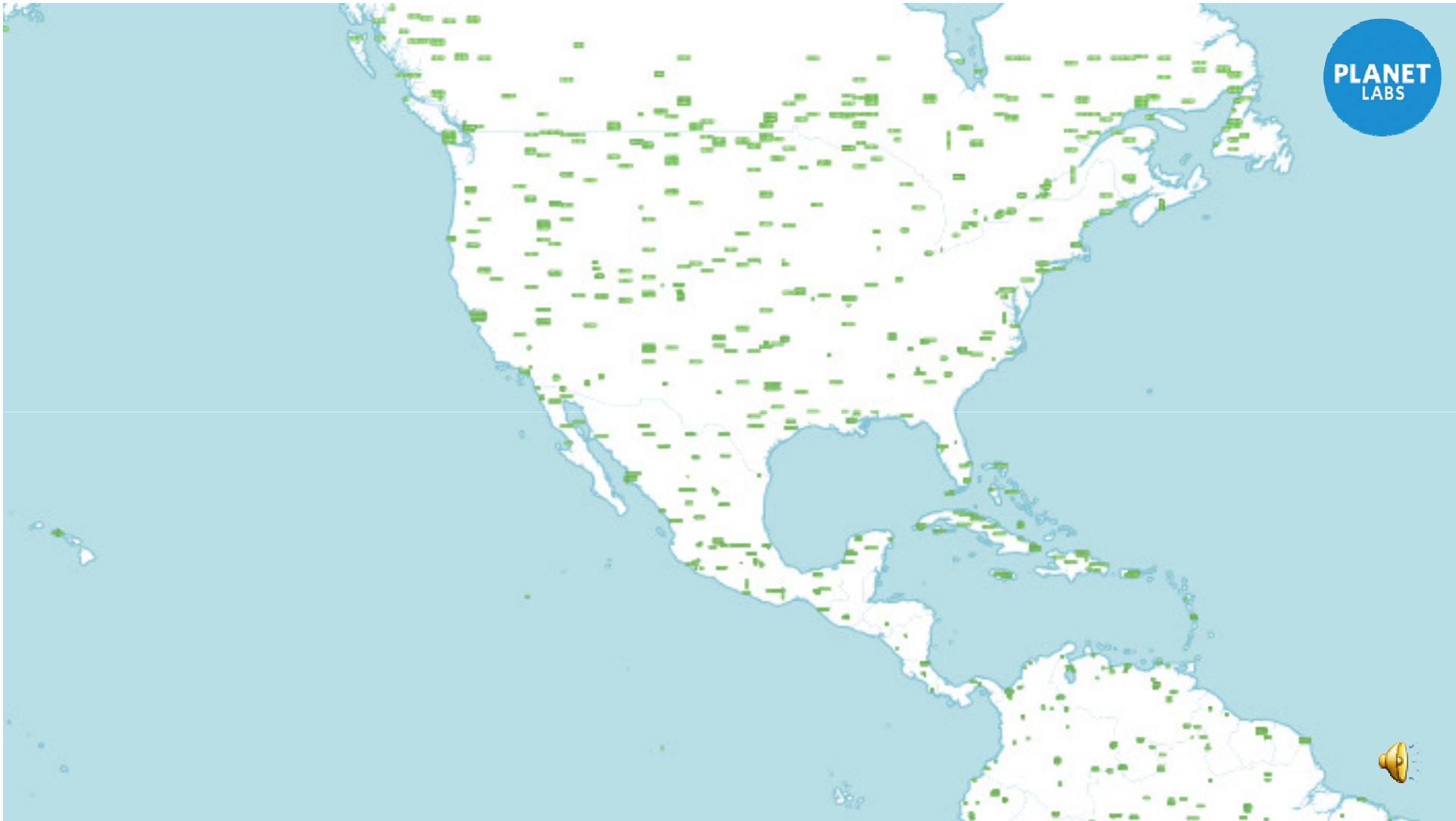




# OTHERS: TASKING

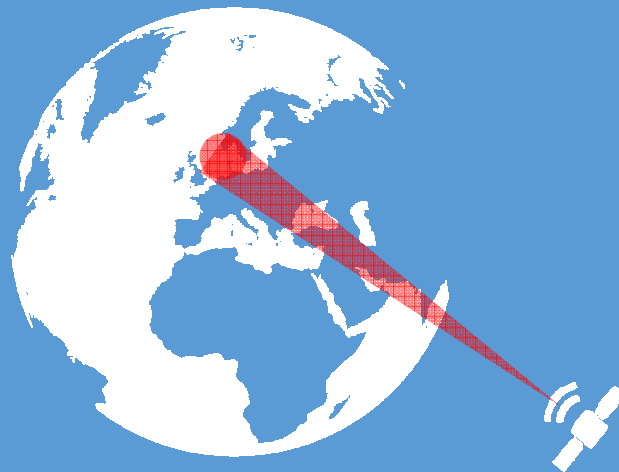
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# OTHERS: TASKING

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“Point and Shoot” Operations

Limited observations

Misses serendipitous events

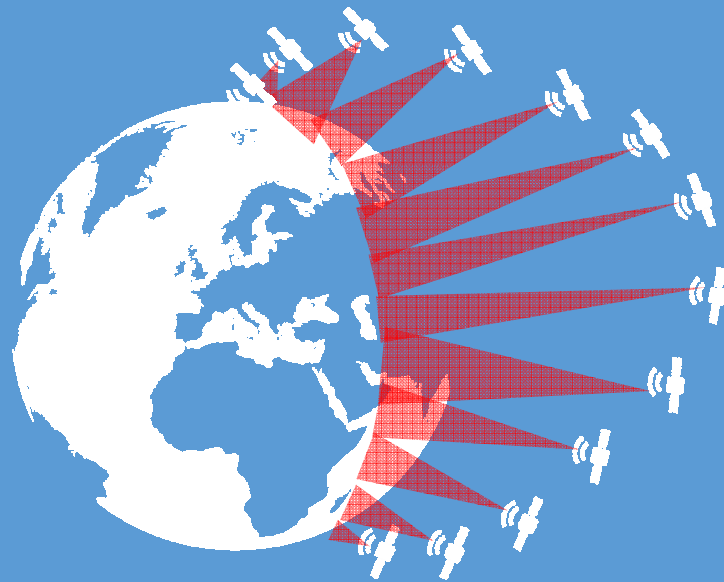
Human-in-the-Loop operations





# PLANET LABS: MONITORING

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“Always-on” Operations

Fresh and persistent data

Catches serendipitous events

Autonomous operations















1x  
Sep 16 2014  
18:08:56 UTC

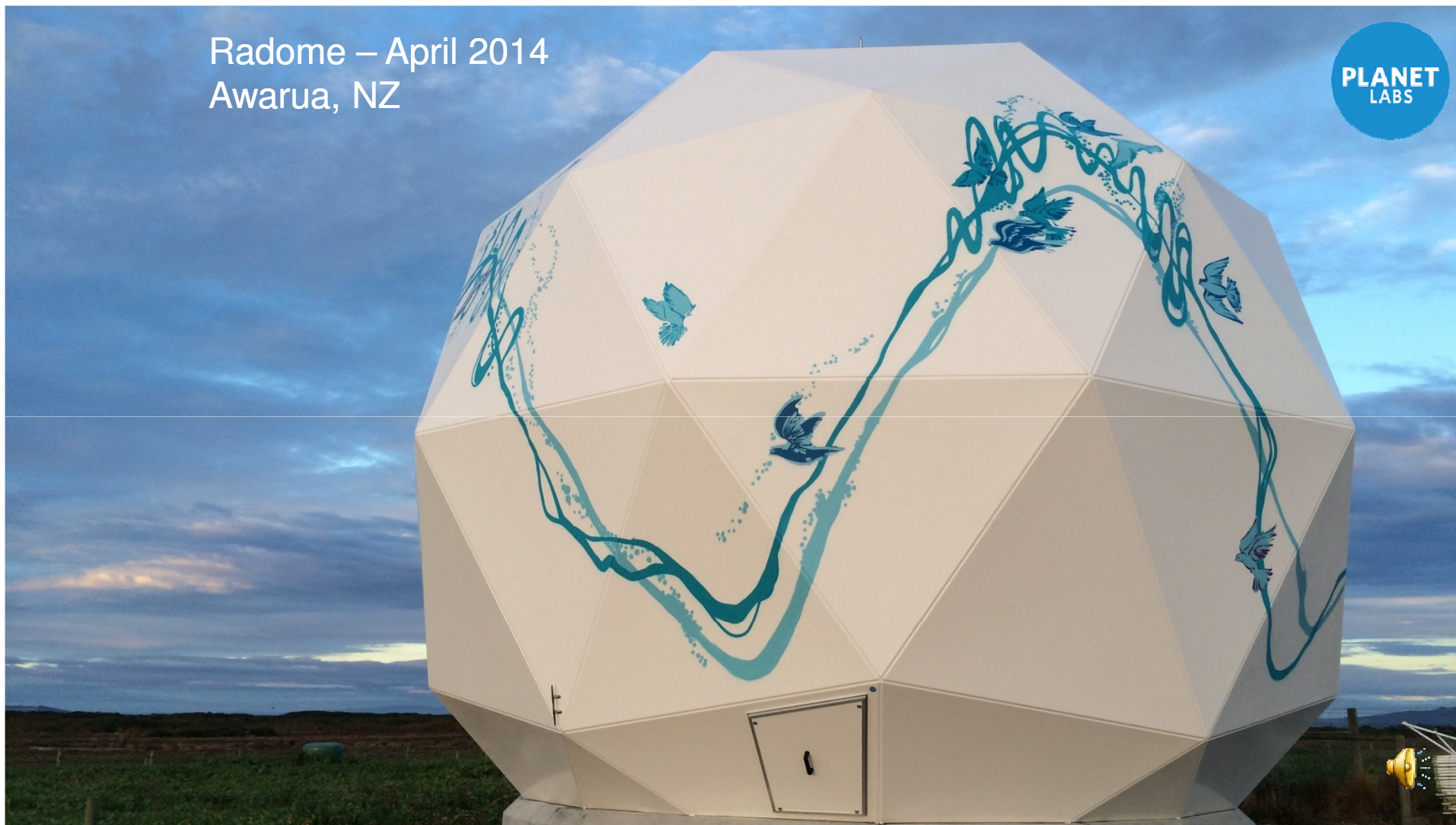
◀ || ▶

Terrain data courtesy Analytical Graphics, Inc. • Image courtesy of NASA • © 2014 Intermap • Earthstar Geographics SIO • © 2014 Microsoft Corporation

Sep 17 2014 00:00:00 UTC    Sep 17 2014 12:00:00 UTC    Sep 18 2014 00:00:00 UTC    Sep 18 2014 12:00:00 UTC    Sep 19 2014 00:00:00 UTC    Sep 19 2014 12:00:00 UTC



Radome – April 2014  
Awarua, NZ







# More about Planet...

## Science Magazine, Vol. 348, April 2015

“How tiny satellites spawned in Silicon Valley will monitor a changing Earth”



## TED Talk

“Will Marshall: Tiny satellites that photograph the entire planet, every day”





What would you do...

If you had access to World data every single day?



# Thank you

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