DATA SHEET

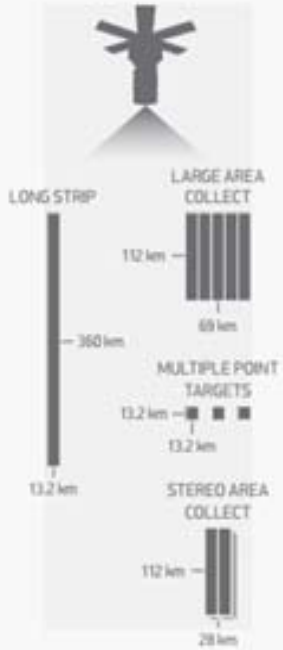
DIGITALGLOBE CONSTELLATION » WORLDVIEW-4

DigitalGlobe™

Design and specifications

Orbit	Altitude: 617 km Type: SunSync, 10:30 am descending Node Period: 97 min.
Life	Estimated Service Life: 10 to 12 years
Spacecraft Size and Aperture	Size: 5.3 m (17.7 ft) tall x 2.5 m (8 ft) across 7.9 m (26 ft) across deployed solar arrays Aperture: 1.1m
Sensor Bands	Panchromatic: 450 - 800 nm 4 Multispectral: Red: 655 - 690 nm Green: 510 - 580 nm Blue: 450 - 510 nm Near-IR: 780 - 920 nm
Sensor Resolution (GSD, Ground Sample Distance, geometric mean)	Panchromatic Nadir: 0.31 m 20° Off-Nadir: 0.34 m 56° Off-Nadir: 1.00 m 65° (earth limb): 3.51 m Multispectral Nadir: 1.24 m 20° Off-Nadir: 1.38 m 56° Off-Nadir: 4.00 m 65° (earth limb): 14.00 m
Dynamic Range	11-bits per pixel
Swath Width	At nadir: 13.1 km
Attitude Determination and Control	Type: 3-axis Stabilized Actuators: Control Moment Gyros (CMGs)

Collection scenarios

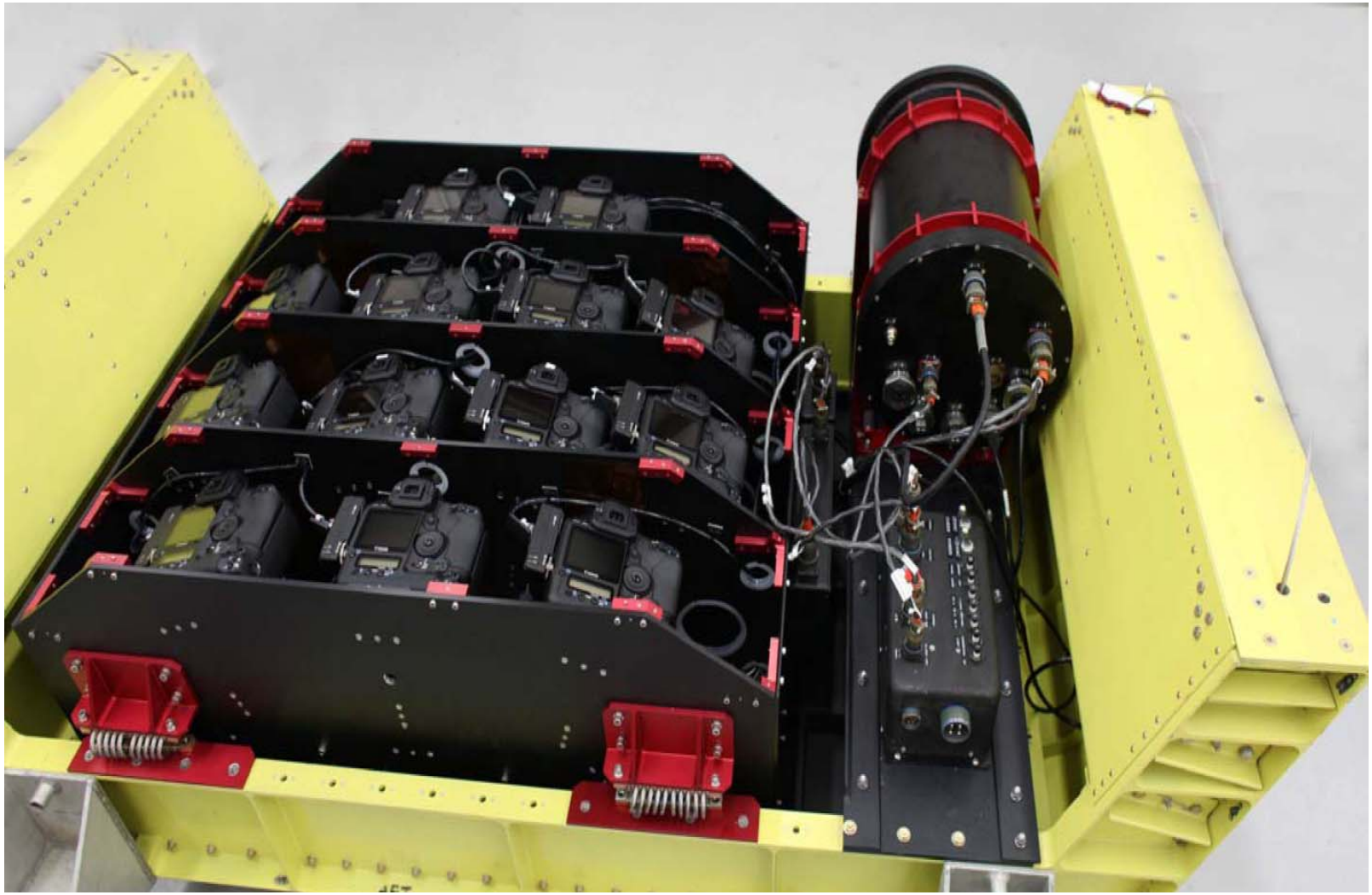


Sensor bands

Panchromatic

ARGUS Panoramic Camera System

12 cameras (Canon 1Ds Mark III) with 400mm lenses

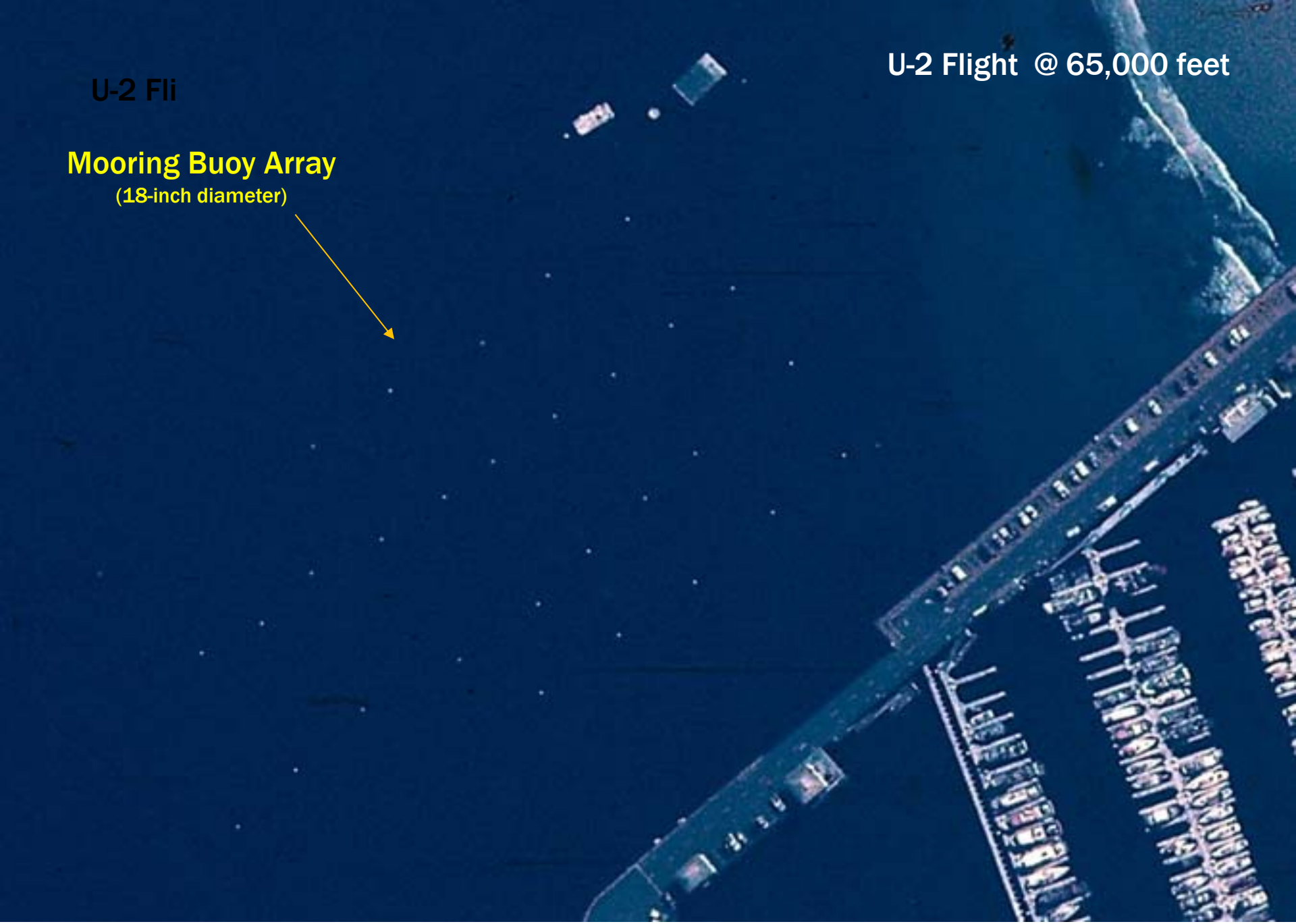


NASA WB-57 Aircraft *– Argus Camera Payload*

ARGUS Marine Examples from 50,000 feet

One-quarter of an image frame

50,000 feet above *Ellington Airfield - NASA Johnson Space Center*


U-2 Fli
Mooring Buoy Array
(18-inch diameter)
U-2 Flight @ 65,000 feet

Present Capability

- Commercial satellite: **(DigitalGlobe WorldView 4)**
  - 0.31m (nadir and B&W)
  - 1.24m (multispectral)
  - 13 km swath
- Existing NASA ARGUS Camera System
  - 0.15m (nadir) / 9 km swath
  - 0.30m (nadir) / 18 km swath

ARGUS could be used for a near-shore demo