# **Pléiades imagery** Caracteristics



# 1. RESOLUTION

# Very high spatial resolution

Pléiades images are onboard satellite acquired at 70 cm resolution (at nadir) for panchromatic spectral mode (black & white) and at 2,8 m resolution (at nadir) for multispectral mode (colour). On-ground 50 cm processing resampling algorithm is performed allowing images robustness, especially in the case of post processing.

50 cm resampled images reflect better quality in terms of information content and ensure the initial content is fully preserved in the final product.

Pléiades images distributed by Airbus DS are at 50 cm in panchromatic and at 2 m in multispectral modes..



## 2. RADIOMETRY

#### **Spectral bands**

5 spectral bands:

- Panchromatic (PA): 470 830 nm
- Blue (B0): 430 550 nm
- Green (B1): 500 620 nm
- Red (B2): 590 710 nm
- Near-infrared (B3): 740 940 nm

#### 1.0 0.9 0.8 0.7 0.6 0.5 0.4 0.3 0.2 0.1 0.4 0.4 0.4 0.4 0.5 0.5 0.5 0.5 0.5 0.5 0.60 0.65 0.70 0.75 0.80 0.85 0.90 0.95

# **Spectral combinations**

Panchromatique	Multispectral	Bundle	Pan-sharpened
(P)	(MS)	(P+MS)	(PMS)
50 cm	2 m	50 cm and 2 m	50 cm merge product
1 band	4 bands	separated	
(black and white)	(B, G, R, NIR)	Panchromatic 1 band	Pansharpened 3 bands Natural or false colour
		Multispectral 4 bands	Pansharpened 4 bands

#### Panchromatic (black and white)

- One spectral band product
- 50 cm resolution



## Multispectral (colour)

- Four spectral bands product (blue, red, green, near infra-red)
- 2 m resolution

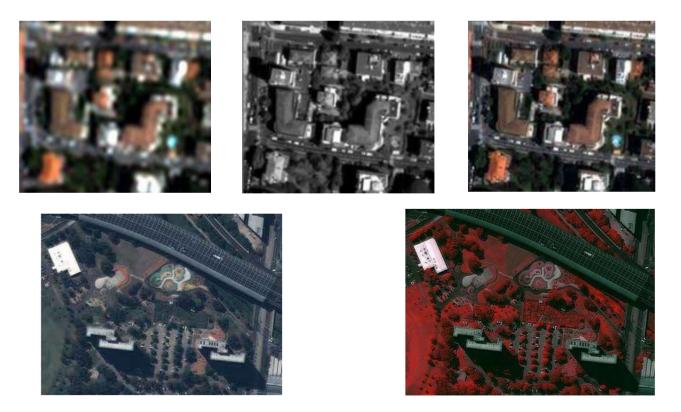


#### Bundle

• 50 cm Panchromatic (on left) and 2 m Multispectral at 2 m (on right) simultaneously acquired Separately delivered (un-merge)

#### Pan-sharpened (merged)

Pan-sharpened products combine the visual coloured information of the Multispectral data with the details provided by of the Panchromatic data, resulting in a higher resolution 0.5 m colour product. Pan-sharpened products are proposed as three- and four band products. The three-band colour products are available in natural colour (blue, green and red) or false colour (green, red and near infrared). The natural and false colour images are derived from Multispectral combinations, with bands that have been acquired simultaneously.



Natural colour (blue-green-red)

False colour (green-red-near-infrared)