

Celebrating Five-year Anniversary of the First Pléiades Satellite Launch



Five years ago, the very high-resolution satellite Pléiades 1A was launched from the Guiana Space Centre, joined by its twin Pléiades 1B a few months later. That marked the start of what is known as the Pléiades constellation, which makes it possible to create imagery product of every point of the globe at a 50cm resolution within a few hours and to guarantee a daily revisit. More than one million square kilometres' worth of data are acquired each day.

The Pléiades constellation has demonstrated its reactivity during the earthquake that rocked Ecuador on 16 April 2016, providing an image on the town of Pedernales just four hours after being acquired. Immediately delivered to the local authorities, this enabled organisers to coordinate the various relief operations and to carry out a rapid assessment

of the damage.

Palmyra

The precision of the Pléiades imagery, coupled with the speed of acquisition over large regions, also played a key role in demonstrating the demolition of the ancient city of Palmyra in Syria by the Islamic State in 2015 and thereby creating a consciousness for the need of preservation of this UNESCO world heritage site.

The two satellites, built and operated by Airbus Defence and Space on behalf of CNES (the French Space Agency), are the first European satellites to observe the Earth in very high resolution. Providing imagery products at 50cm resolution with a 20km swath, they are positioned 180° apart in a same near-polar, sun-synchronous orbit at an altitude of 694 km. They also have remarkable agility which allows them to aim a point up to 1500 km on either side of their track. This gives them a fast zone-pointing capability and multiple shooting modes (stereo, mosaics, corridor, targets).

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