

The PAZ satellite monitors volcanic activity on the island of La Palma

- Since its first eruption in September.

Madrid (Spain), November 2, 2021—The PAZ satellite, owned and operated by Hisdesat, is being widely used to monitor the volcanic eruption of La Palma. Since September 11, 2021, a large seismic activity was taking place in the southern part of the Spanish Canary Island of La Palma (Cumbre Vieja region). The volcano was under strict surveillance after more than 22,000 tremors were reported in a week. The increasing frequency, magnitude, and shallowness of these movements were indicative of a pending volcanic eruption; which took place on September 19, prompting the evacuation of people in the vicinity.

PAZ provides specific images of SAR (**synthetic aperture radar**) satellites, especially of very high resolution, which is the specificity that the satellite provides compared to other radar images of others, including the Sentinels. *"We are taking series of images with exactly the same geometry to perform SAR interferometry and be able to measure very small deformations of the ground at times exactly separated by an orbital cycle (11 days) or multiples of the cycle"*, says Miguel Ángel García Primo, CEO of Hisdesat.

Hisdesat is supplying PAZ data to the European **Copernicus** program, in particular to the Emergency Management Service, for the production of cartography to monitor the affected areas. Recently, Copernicus has published maps of the area, using Hisdesat's PAZ satellite images:

https://emergency.copernicus.eu/mapping/system/files/components/EMSR546_A0101_GRA_MONIT26_r1 RTP02/v1.jpg

Data are also being offered to the **National Geographic Institute and to CSIC organizations such as the Mining Geological Institute and IPNA, all of them in the PEVOLCA Scientific Committee**, to monitor the deformation of the terrain with radar interferometry techniques. This initiative is carried out in a coordinated manner and in close collaboration with Airbus to jointly offer the TerraSAR-X / PAZ Constellation data; the combined use of both satellites allows the revisit time to be reduced to 4 or 7 days, which greatly facilitates the monitoring of the eruption. "With this we can see not only the new castings, but also to see much smaller ground deformations with very high precision", adds García Primo.

Finally, in the scientific field, through the **PAZ-CIENCIA** program managed by INTA, PAZ data is being supplied to a large number of research centers both in Spain and abroad. In short, this campaign to obtain images on the island of La Palma and the Cumbre Vieja volcano reveals once again the dual use, civil and military, of the PAZ satellite and the synthetic aperture radar technology developed in Spain.

About Hisdesat

Hisdesat was born in 2001 as an operator of government satellite services to act primarily in the areas of defense, security, intelligence and foreign services. Since 2005, the company has provided secure satellite communications services to government agencies in different countries and since September 2018 it has been providing Earth observation services with radar technology through the PAZ satellite, launched successfully on February 22, 2018. It has also of a constellation of maritime traffic information satellites (AIS). www.hisdesat.es

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