

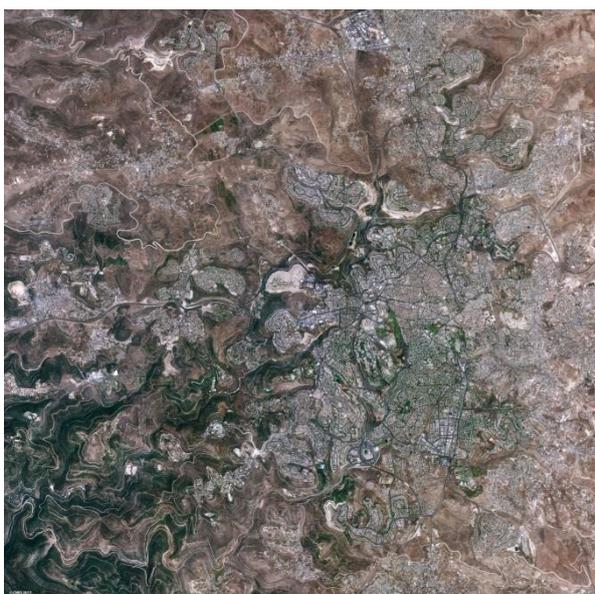
Paris, 23 August 2017  
PR127 - 2017

# France-Israel space cooperation Venus vegetation-monitoring satellite sends back first images

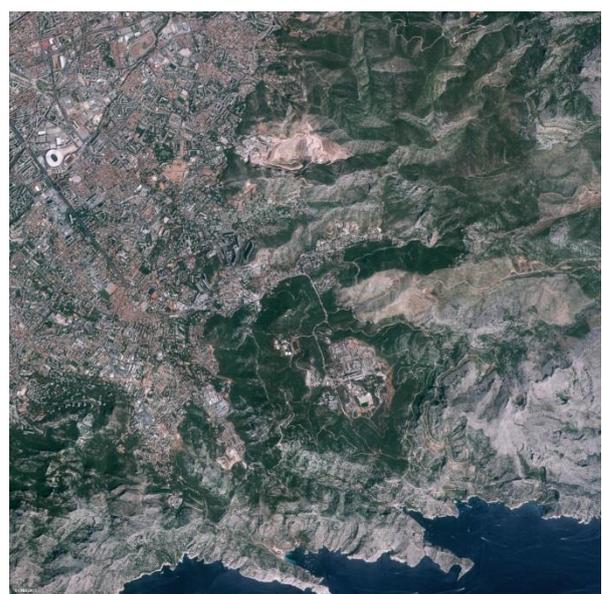
**A few days after being placed into orbit, the French-Israeli Venus vegetation-monitoring satellite delivered its first images, offering a glimpse of the kind of data it is set to acquire in the years ahead to bring new insights into the processes driving climate change, its impacts and future coping strategies.**

Orbited by a Vega launcher from the Guiana Space Centre (CSG) on the night of 1 to 2 August, Venus is a scientific satellite developed jointly by CNES and the Israel Space Agency (ISA), and supplied by Israel Aerospace Industries (IAI). With its multispectral camera supplied by CNES, the satellite is now ready to observe more than 100 sites of scientific interest at a resolution of five metres. The selected sites are representative of the Earth's main natural and crop ecosystems. They will be observed every two days for the next two and a half years in 12 spectral bands, from the blue to the infrared.

CNES acquired the imagery from different regions of the globe starting on Thursday 17 August. The images were recorded on board the satellite, downloaded to the Kiruna receiving station in Sweden and then processed at the Toulouse Space Centre (CST).



*Region of Jerusalem imaged by  
Venus on 17 August 2017*



*Region of Marseille imaged by  
Venus on 18 August 2017*

Jerusalem and Marseille are both prone to frequent wildfires that are posing an increasing threat as a result of longer periods of heatwaves and drought conditions due to the influence of climate change. Venus will help scientists to develop new methods for characterizing the Mediterranean's ecosystems, understanding their underlying mechanisms and devising risk-reduction solutions.



*Irrigated crops seen by Venüs on 17 August 2017 near Phoenix, Arizona (United States).*

With a mean annual temperature of 24°C and precipitations amounting to no more than 200 mm per year, crops like alfalfa, cotton and citrus fruits can only be grown here with irrigation. In the context of a changing climate, data from Venüs will serve to develop models for optimizing consumption and saving water.



*Peruvian rainforest in the region of Ucayali seen by Venüs on 19 August 2017.*

Rainforests are facing a number of threats. They store large amounts of carbon, influence atmospheric circulation and precipitation, and are a haven of biodiversity. Human activities and climate change are disrupting their ecosystems. Thanks to its frequent revisit rate, Venüs will enable more-regular monitoring of such cloudy regions.

The images shown here are just a foretaste of Venüs's potential for regular and frequent monitoring of land surfaces and delivering data for improving land cover maps, studying biodiversity and building models of carbon flux, crop yields and irrigation management.

Venüs's unprecedented revisit rate, high spatial resolution, constant viewing angles and rich spectral detail will enable scientists to better understand and model land surface change being driven by climate and human activities. Venüs will also pave the way for the definition of Europe's future Earth-observation satellites.

The Venüs mission is currently in its operational qualification phase, which is scheduled to last three months. All of its systems are being tested out and the camera settings for image processing are being calibrated from acquired imagery.

## Contacts

Pascale Bresson - Press Officer  
Fabienne Lissak - Head of Media  
Raphaël Sart - Press Officer  
Press Office

Tel. +33 (0)1 44 76 75 39 [pascale.bresson@cnes.fr](mailto:pascale.bresson@cnes.fr)  
Tel. +33 (0)1 44 76 78 37 [fabienne.lissak@cnes.fr](mailto:fabienne.lissak@cnes.fr)  
Tel. +33 (0)1 44 76 74 51 [raphael.sart@cnes.fr](mailto:raphael.sart@cnes.fr)  
Tel. +33 (0)1 44 76 76 88 [cnes-presse@cnes.fr](mailto:cnes-presse@cnes.fr)

**presse.cnes.fr**