



Monitoring and Exploring Mexican Active Volcanoes Program

Gxiba-1 cubesat

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Gxiba-1 General Director



Through Unoosa website:

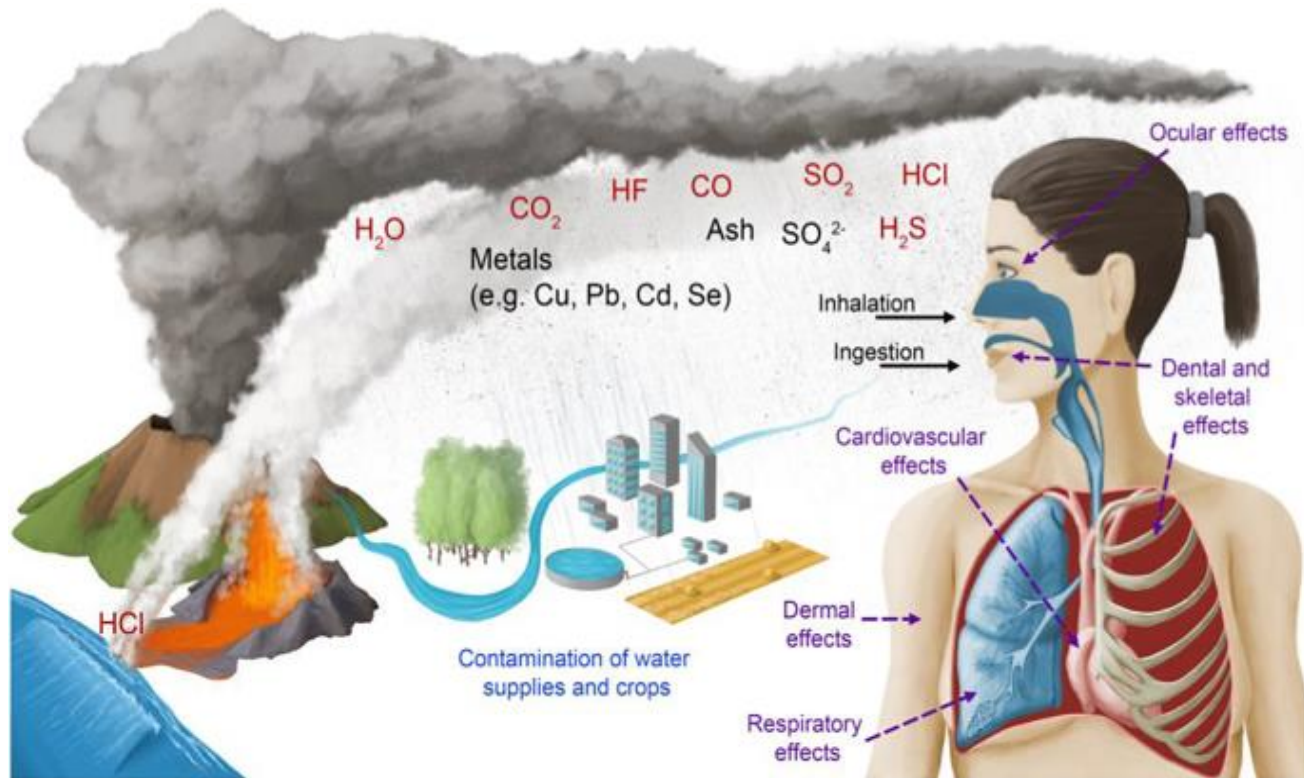
unoosa.org

We, professors and students, found the great opportunity for ALL to design, build and develop a cubesat to be deployed from the International Space Station.

A student from our aerospace engineering program sent us the information and I immediately called for a meeting to apply for the sixth round of kibocube.



Rationale:



In Mexico, as in other countries of the world, there are some active volcanoes. Many of them present a danger to the populations living nearby. Or even the possibility of disaster for people and the environment.



Mexican Active Volcanoes



Mapa de los volcanes activos en México. Fuente: Cenapred





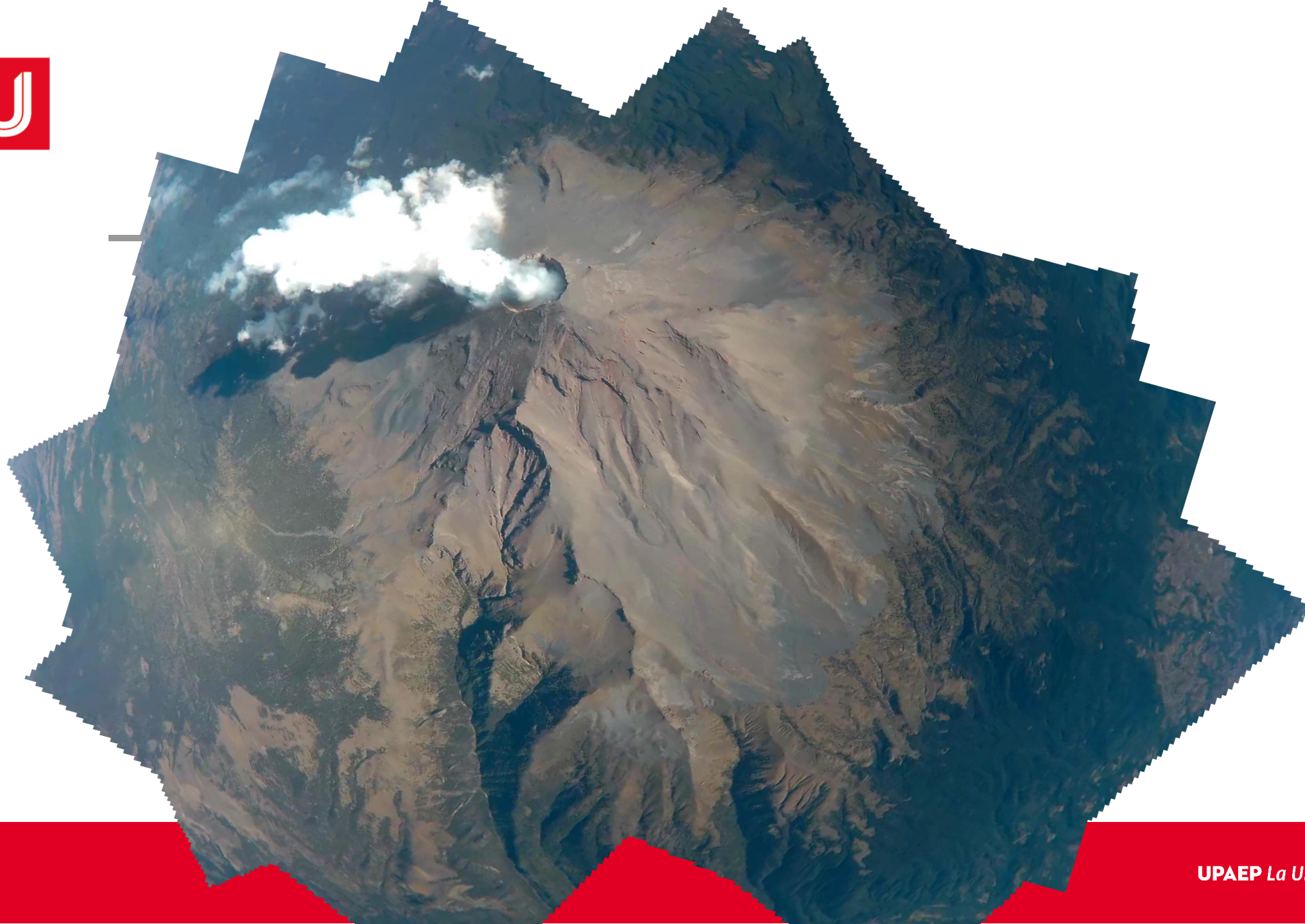
POPOCATÉPETL

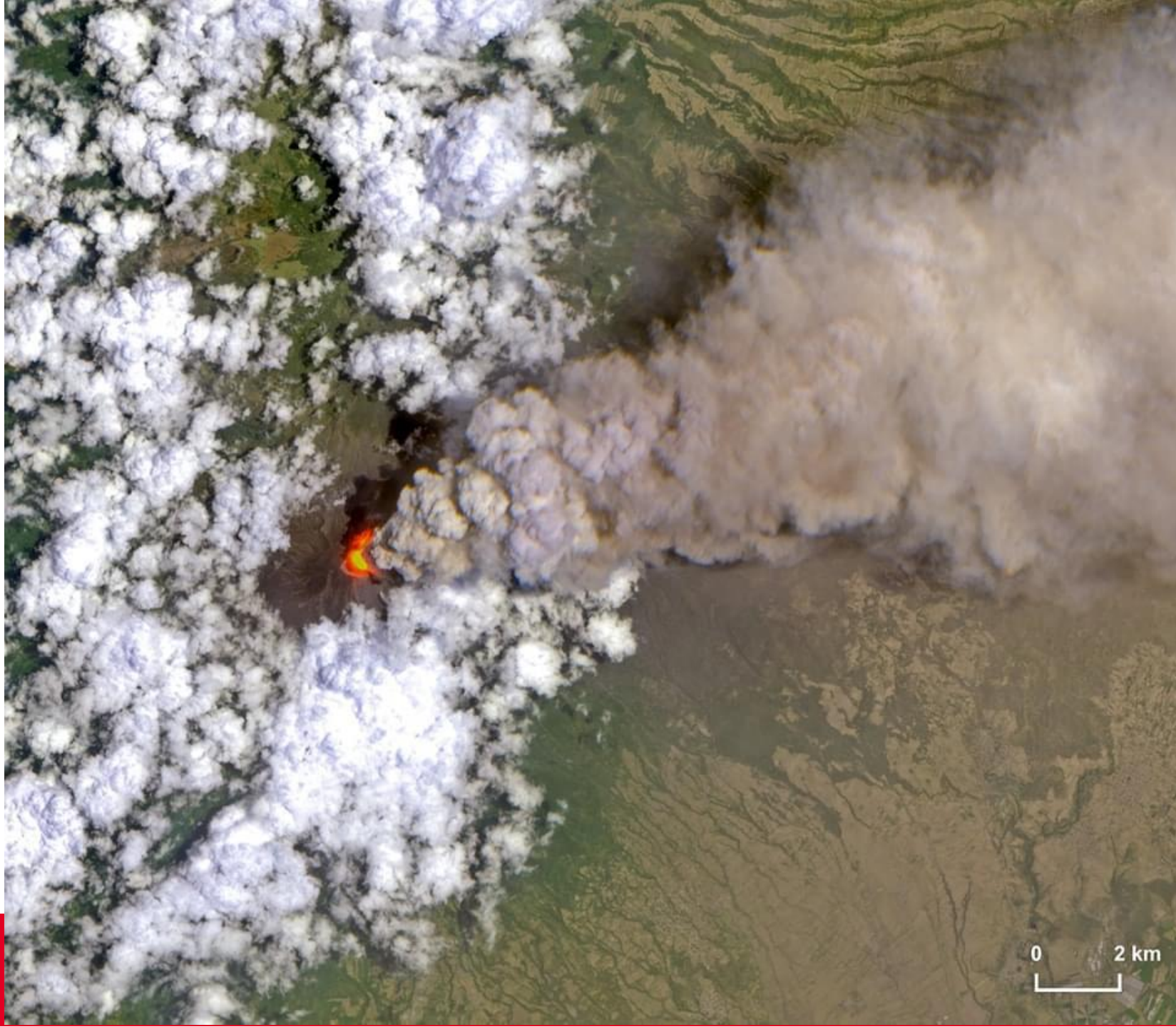
SMOKING MOUNTAIN





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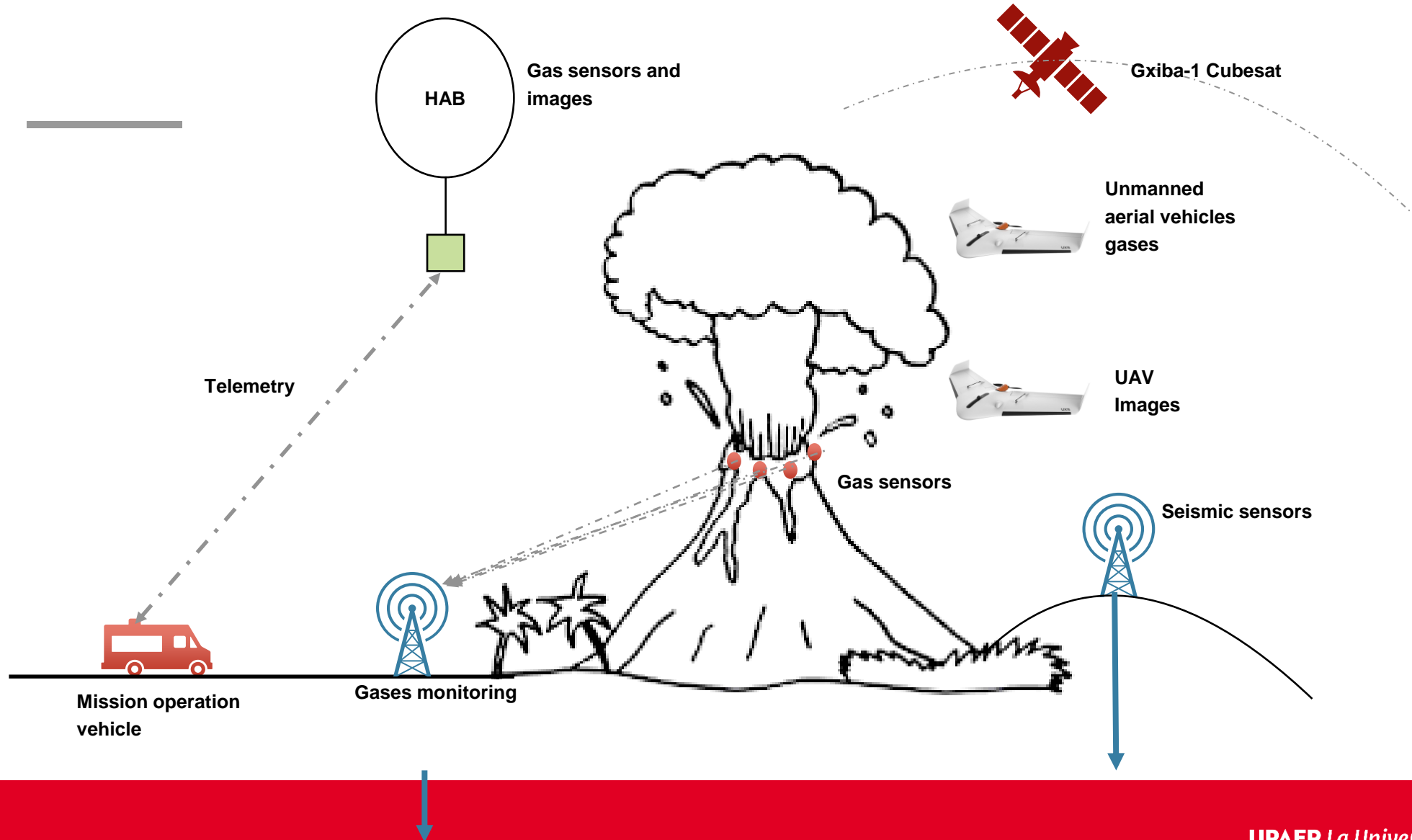








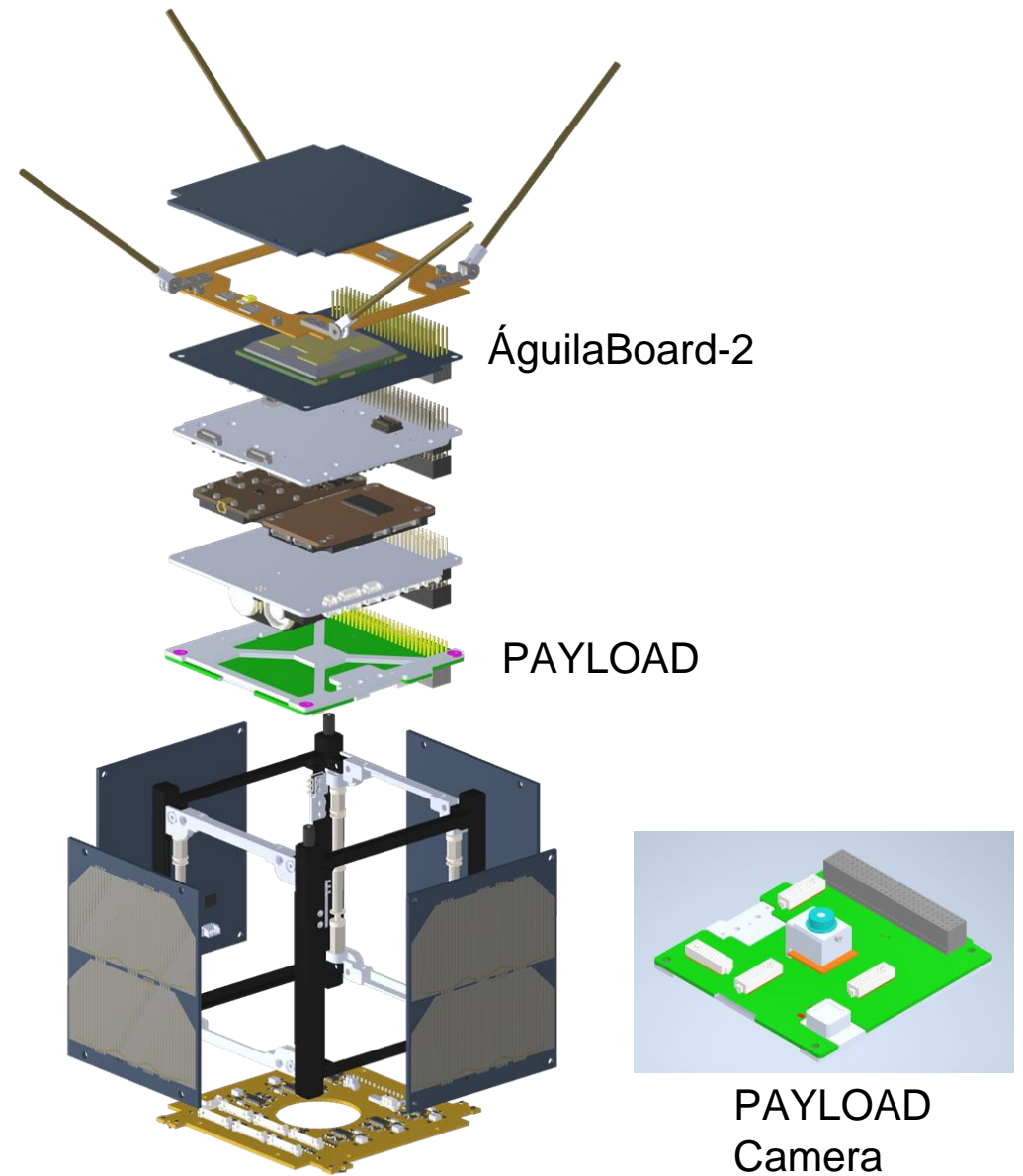
Monitoring and Exploring Mexican Active Volcanoes





GXIBA: Mission

The mission is to develop a 1U CubeSat, named "Gxiba-1", to observe the active volcanoes in Mexico and analyze the dispersion of ash to alert the population in the vicinity of the volcano.



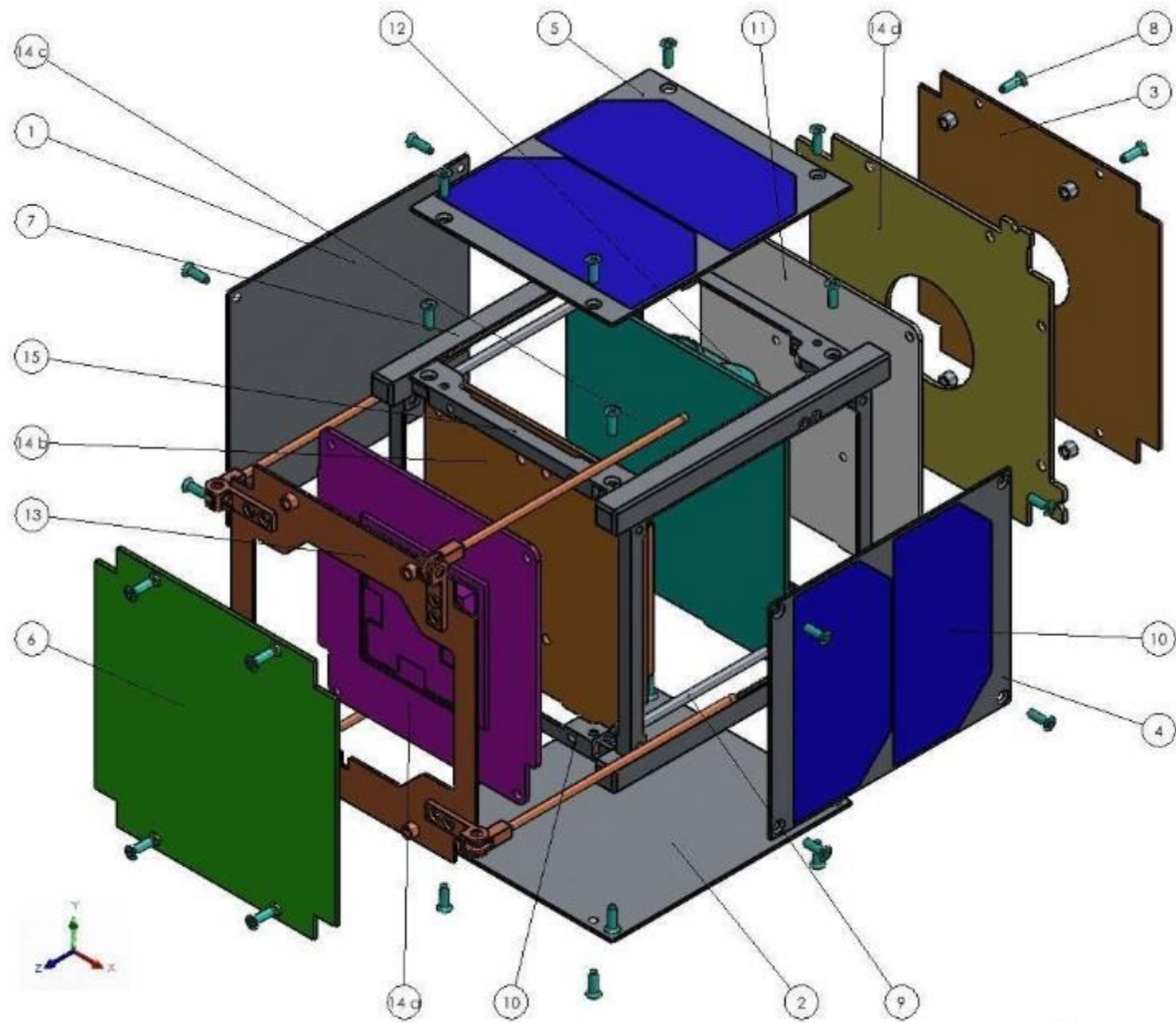


Figure 4-3 Assembly Diagram

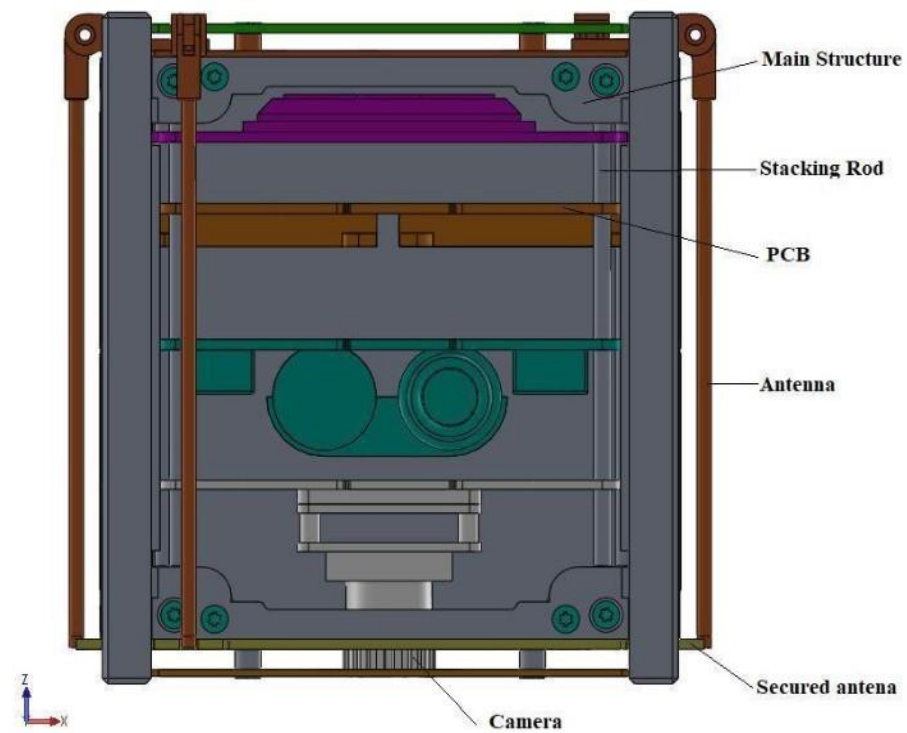
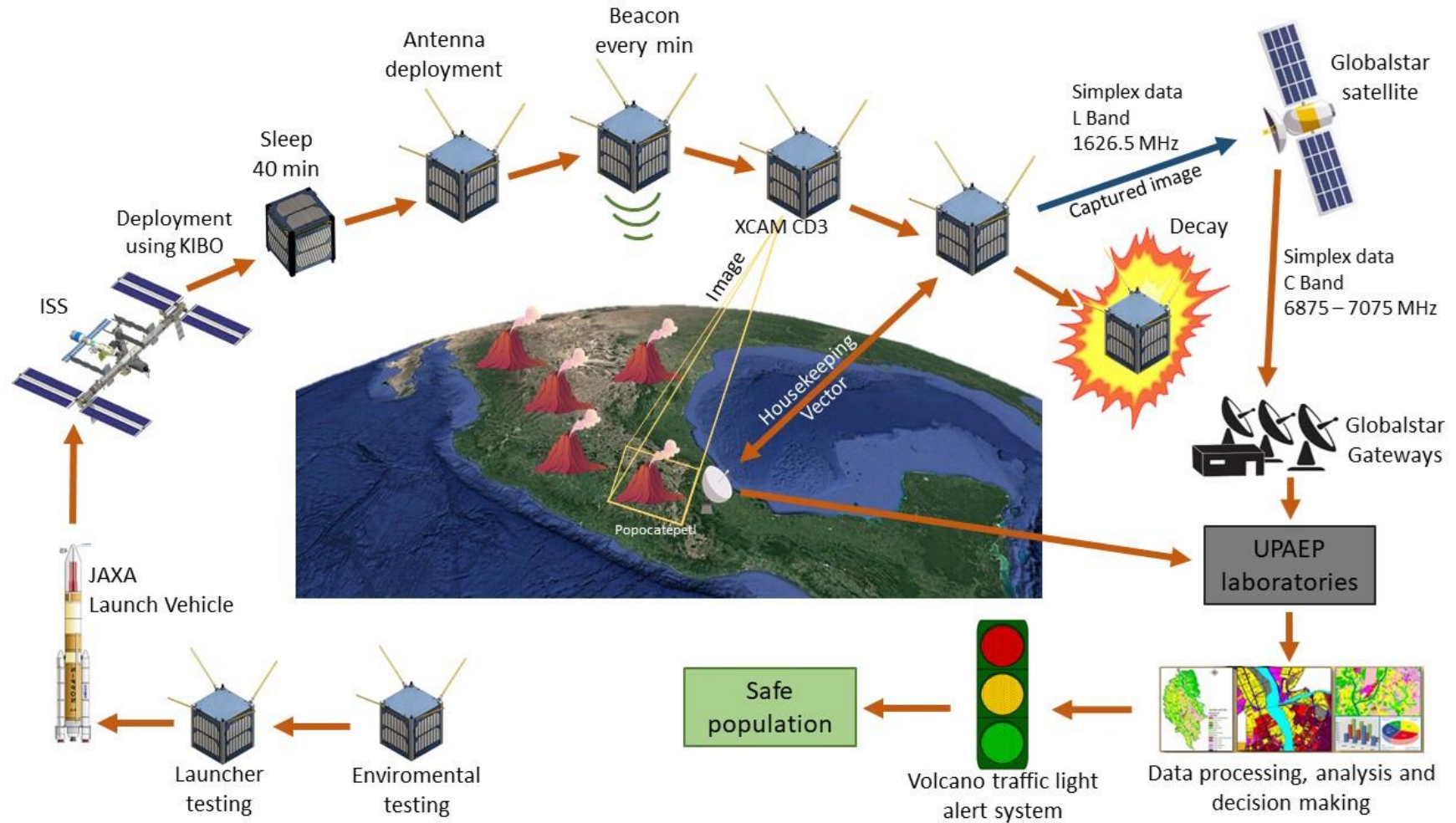


Figure 4-2-2 Overview of Satellite (detailed)

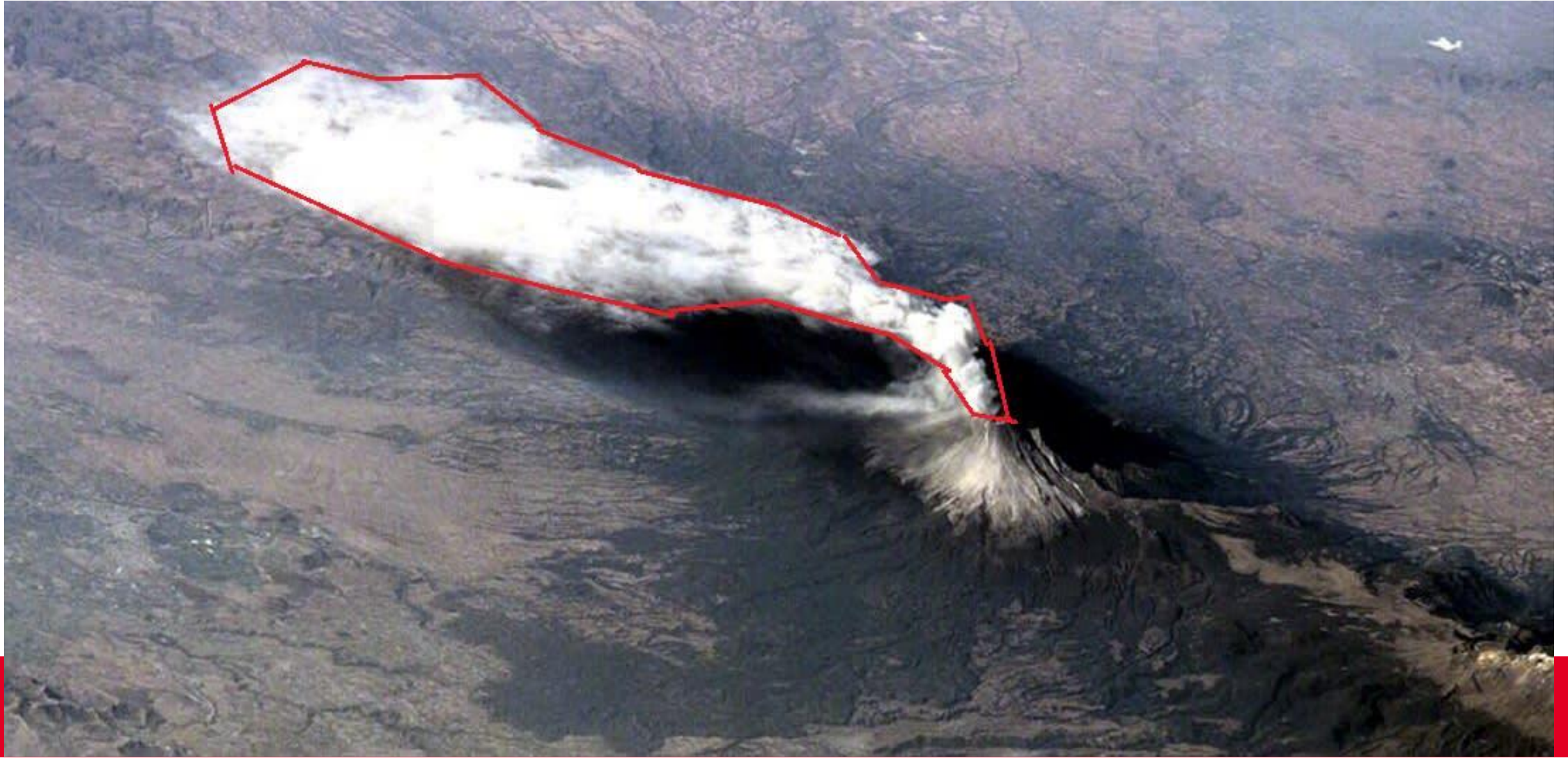


Mission Concept





Mission Concept:





This project is the first step, but extremely important, for the future in monitoring active volcanoes in Mexico. Even a Federal Institution, CENAPRED (National Center for the Prevention of Disasters), is interested in the results and data that Gxiba-1 will provide.

UPAEP aerospace undergraduate program has almost 100 students, many of them are involved in one way or another in Gxiba-1 project. Their participation in these challenges is a significant part of their education.

Several universities in Mexico are following our work, and I am sure more universities will launch their own satellites in the future.



¡Gracias!

