

Advantages of a Cubesat Receiving Station located in the South of the Indian Ocean

Vincent Dinnat
Lycée de Bois d'Olives, Reunion
dinnat.vincent@gmail.com

Keywords : Reunion Island; Cubesat; NASA/JPL; ISS; Tracking Station

We are seven students at the LBO Bois d'Olives Senior High School / Junior College (fig.1). Under the supervision of our Science and Technology teachers, we work on the CRIS-LBO receiving station (Cubesat Reunion Island Station at Lycée de Bois d'Olives). We are in Reunion, a beautiful island with a European advanced technological environment, located in the Indian Ocean, not far from the equator in the South Hemisphere, with a very favourable climate, well protected for operations. This is a geographical area with fewer stations than in the North Hemisphere, where often nobody else can see the satellites.

The CRIS-LBO station covers a large part of the Indian Ocean and allows a greater extension of the receiving stations network on the surface of the globe, to obtain data that we can share with Nasa, technological Universities and other organisations.

Our station offers many advantages. We can track cubesats and small satellites in low Earth orbit. With our setup, we can also envision communicating with the astronauts of the ISS. And most of all our station is located opposite to California and similar installations at JPL in Pasadena (fig.2). The two reception sites are complementary for interplanetary cubesats, which will be visible from either station, depending on the orientation of the Earth.

With this project, we can interact with students in other countries, do attractive learning and discoveries. With the experience that we are going to acquire, why not also build our own cubesat and send it to space to track its trajectory, make observations and measurements, receive information and data. This may contribute to a worldwide recognition of space activities in our island and to its scientific fame. Locally, the CRIS-LBO station may even become an asset for a different kind of tourism, both experiential and scientific.



Fig.1 The CRIS-LBO student team

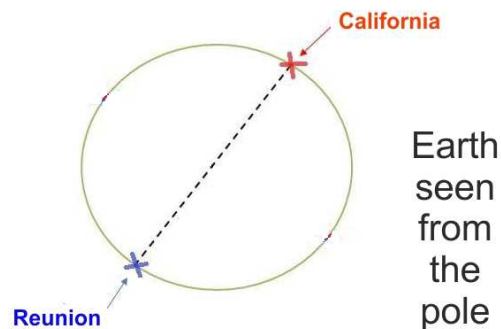


Fig.2 Respective location of California and Reunion