# **Stargazing Sites on La Palma Island**

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Stargazing on La Palma Island is one of the finest astronomical experiences possible. The small volcanic island in the Atlantic Ocean is part of the European country Spain, has a modern airport, good infrastructure and offers impressively dark skies. Due to a very restrictive lighting policy, outdoor lights on La Palma are well shielded and the nighttime sky still looks how it should: dark

and full of stars. First time visitors to La Palma are often overwhelmed by the pristine skies of the island. Even in the populated areas near the coast, where most accommodations are located, the Milky Way is a magnificent sight. But for the real show you have to leave the coastline and drive up to the mountains. High above the



coastal haze you will experience outstanding sky conditions: In the evening and morning hours, the Zodiacal Light is a bright cone of light, extending up to 90 degrees along the ecliptic. The Sun's elusive Gegenschein is easily visible and when you are fully dark adapted, your body will cast a shadow in the light of the Milky Way's central bulge. Whether you stay in an apartment on the east side or in a rental house in the western part of the island, all you have to do is take a short drive to an altitude of about 1000 meters above sea level. On the following page we present a selection of tried and tested observing sites that are easily accessible from the villages.

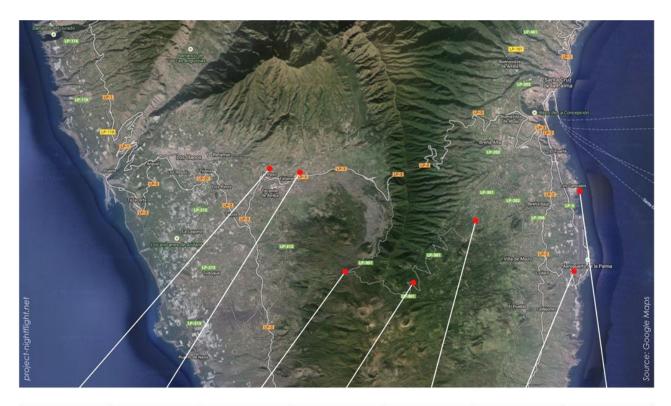
During daytime you can go hiking in the mountains or hang out on one of the marvelous beaches

#### Notes for the Casual Stargazer:

When you go for a vacation to La Palma Island, don't forget to bring a pair of binoculars along, as well as a red flashlight for your stargazing trips. A good star chart or a stargazing app for your smartphone might also prove very useful. You may also want to take some warm clothes with you - up in the mountains it can get quite chilly, especially in winter. and take a swim in the Atlantic Ocean. Water temperatures are above 20 degrees Celsius most of the time, even in the winter months. The island itself is in fact a large volcano. Seen from above on a satellite image, the huge caldera is plainly visible. Its highest ridges have an altitude of 2400 meters - this is where the great professional observatories are located, including the world's largest optical telescope, the Gran Telescopio Canarias. Several visitor centers on the island provide insights to the island's geology, flora and fauna. An extensive network of hiking trails covers the island's protected areas.

## **Stargazing Sites Easy to Reach**

Here is a compilation of tried and tested observing sites that are in easy driving distance from the populated areas on the east and west coasts.



××××× El Paso	Visitor Center Caldera de Taburiente	**** Mirador Llano del Jable	Mirador Llano de las Ventas	**** San Isidro Bus Stop	***** Mirador Aeropuerto	Cancajos Los Molinos
650m	850m	1.340m	1.320m	600m	90m	10m
Village Center	LP-3 km 20.3	LP-301 km 5.2	LP-301 km 9.4	LP-301 km 17.3	LP-205 km 2.4	Boardwalk

Each stargazing site above gives its altitude above sea level. The next line in each box shows the site's location on the road. For example, LP-3 km 20.3 means that the Visitor Center can be found on the road LP-3 at road kilometer 20.3. You won't have any trouble finding these spots, the roads on La Palma are very well signposted. The last entry SB\*) is the site's sky brightness in the zenith in magnitudes per square arcsecond. This technical term is an indicator for the sky quality - the higher it is, the darker is the sky. The 5-star ratings at the top of the site descriptions have been derived from these SB measurements. Below the sites, their distances in kilometers and approximate driving times are given.

<sup>\*)</sup> Note for experts: The sky brightness measurements have been performed with a Unihedron SQM-L in June 2014 during solar maximum with enhanced airglow present. In times with less solar activity even better sky brightness values can be expected.

## **Choose Your Favorite Stargazing Site**

To complement the chart above, here are some more detailed descriptions of all the stargazing sites shown on the previous page:

**El Paso**: Even in the village El Paso the sky is already quite nice. When you walk to the outskirts of the village and shield your eyes from the streetlights, you will get a nice view of the Milky Way.

**Visitor Center Caldera de Taburiente**: This place is an insider tip for everybody whose apartment, rental house or hotel room is on the west side of the island. Only a five minutes' drive from El Paso, its parking lot makes a great place for stargazing. The sky is already very dark at this location and the Milky Way begins to show its true splendor.

**Mirador Llano del Jable**: For those who want to experience a really outstanding night sky, this is one of the places to go. At an altitude of 1340 meters above sea level, most of the atmospheric haze stays well below. Thousands of stars, the Zodiacal Light and the Milky Way put on a fantastic show.

**Mirador Llano de las Ventas**: This is the second of the Miradores on the LP-301, located on the east side of the island. The altitude of the observing site is 1320 meters above sea level and the quality of the night sky is as great as it is on Mirador Llano del Jable. When you visit these places, take your time to let your eyes adapt to the dark. It is really worth the wait.

Why drive to the mountains at all?

As mentioned in the text, there are two rather fine stargazing sites at lower altitudes: The Visitor Center on the west side and the Mirador Aeropuerto on the east side of the island. So why should you drive to the mountain sites? There is a simple answer: At the Miradores at 1300m above sea level you will be above most of the moisture in the atmosphere. The views at these altitudes are breathtaking - you will experience crystal clear skies down to the horizon, with no haze dimming the Milky Way, the Zodiacal Light and other marvels of the night sky.

**San Isidro Bus Stop**: At this location you won't find a dedicated viewing point although stargazing is possible. The night sky is not as good as it is on the Miradores, but already quite impressive. We included this site on the map, because it is only a few kilometers from a group of villages, e.g. San Jose or Las Ledas.

**Mirador Aeropuerto**: This is the insider tip for everybody who spends his vacation in Santa Cruz or Los Cancajos. Only a car drive of about ten minutes from Cancajos, this small viewing point provides an astonishingly dark night sky. From Santa Cruz, it takes about 20 minutes to get there. If your apartment or hotel room is in one of these towns and you want to get a quick view of the legendary La Palma night sky, you should really drive to this spot.

**Cancajos Los Molinos**: If you stay in Cancajos and don't have a rental car, you can still get a nice view of the Milky Way. On an evening stroll on the seaside boardwalk of Cancajos you will experience an agreeably dark night sky that gives you at least an impression why La Palma is called the Stars Island.

## **Explore the Miradores in 360° Panoramas**

We have prepared some full-sphere panoramas of the two mountain miradores mentioned above which you can use to plan your observing sessions. The daylight views show the cardinal points and the position of the celestial pole and include a horizontal coordinate grid.

#### Mirador Llano del Jable



Daylight view with horizontal coordinate grid Visit the interactive 360° Panorama



Nighttime view during dusk Visit the interactive 360° Panorama



Daylight view with horizontal coordinate grid Visit the interactive 360° Panorama



Nighttime view with bright moonlight Visit the interactive 360° Panorama

#### Mirador Llano de las Ventas

### Listen in on La Palma Nights

To give you a realistic preview of what to expect when stargazing on La Palma, we compiled a collection of <u>audio pictures</u>. The audio pictures are photographs of La Palma night landscapes accompanied by natural sounds recorded at the locations. If you watch the audio pictures, you will most likely notice a much stronger effect than traditional astrophotos cause. This happens



because the audio pictures reach two channels of human The perception. visual channel is backed up by sounds, which easily triggers memories from first-hand experiences. Imagination then completes the illusion and the picture becomes the current reality. You suddenly feel like outdoors being

under the La Palma night sky. Most of the audio pictures were imaged and recorded during 2013 and 2014 on the island. We used standard photographic equipment for imaging and a voice recorder with a stereo microphone for capturing the audios. High-end digital processing techniques were implemented to give both the images and the sounds the final brilliance.

#### There is More: Visit project nightflight

The information in this document is brought to you by *project nightflight*. The *project nightflight* team is a registered association in Austria by the official name of Association for the Presentation and Conservation of the Starry Sky (translated name). This association unites experienced, world-wide active astro-photographers in their endeavor to show the unspoiled starry sky on pictures and to internationally promote its conservation as environmental resource. To support this goal, astronomical articles and striking photos of the night sky are published. *project nightflight* is headed by Karoline Mrazek and Erwin Matys. To see more night sky images shot from La Palma visit the project nightflight website.



The authors **Karoline Mrazek** and **Erwin Matys** are founding members of the astrophotography group project nightflight. Check out their images, tests and tools at their website.